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ON SOME RECENT RESEARCHES ON THE NATURE AND FORMATION OF PIGMENT.

By ARTHUR WHITFIELD, M.D.

In Band cxxiv, Heft 2 of the *Archiv. für Dermatologie und Syphilis*, there was published a group of papers which appear to me to be of considerable interest, and it has occurred to me that a short abstract of the principal points contained in them may be of service to the readers of the Journal.

The papers are three in number :

(1) "The Problem of the Formation of Pigment in the Skin," by Bruno Bloch.

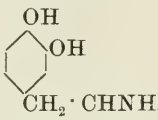
(2) "On the Pathogenesis of Vitiligo," by Bruno Bloch.

(3) "A Contribution to our Knowledge of the Biological Effect of Rays upon the Skin, with Special Reference to the Formation of Pigment," by W. Lutz (first assistant in Bloch's Clinic).

Of these, by far the most important is the first, the others being, indeed, merely dependent upon it. This first paper is not the first publication of the research which has apparently resulted in a discovery of great interest and probably of importance also. The original paper was published by Bloch and Ryhiner (*Zeitschrift für d. ges. exp. Medizin*, 1917), but unfortunately I could not obtain this

journal at the library of the Royal Society of Medicine. This is a pity, because, although the present paper which I am about to analyse contains, as far as one can see, the more important points, it does not give any indication of the factors which led to the use of the particular chemical on which the research depends.

This reagent is 3·4-dioxyphenylalanin, which Bloch calls "dopa" for short. The substance is a combination of orthodioxybenzene (pyrocatechin) as nucleus with α-amino-propionic acid as side-chain and possesses the following constitution:



The substance occurs in optically active (lœvorotatory) form in certain plants, especially *vicia faba*, and is obtained by the process of M. Guggenheim, or it is prepared synthetically (after Fromherz and Hermanns) from vanillin and hippuric acid, and is then the optically inactive, racemic modification. Both forms have served in Bloch's experiments. Unfortunately, the difference in the reaction is given in the original paper, to which I have not access.

Method.

The skin is obtained by biopsy and embedded in agar and cut with the freezing microtome. The sections are placed for twenty-four hours at room temperature, or at 37° C. in 1 per cent. watery solution of dioxyphenylalanin (dopa solution). They are then washed out and either mounted direct or after-stained with Unna-Pappenheim stain.

Even macroscopically one can see that certain parts of the section are stained dark. This staining affects partly some elements of the cutis, namely, the polynuclear leucocytes, the sweat-glands, and here and there nerve fibres. This is due to the presence in the granules of leucocytes and glandular cells of an oxidase called by Spitzer-Rohmann "phenolase," and by Schultze-Winkler "polyphenolase," which oxidises the dioxyphenylalanin. It has no further interest for us at present.

The colour changes in the epidermis are far more important. It affects especially the basal layer and produces according to its depth

either a continuous greyish-brown to deep black wavy band corresponding to the epidermis or more or less isolated patches with lighter parts between.

This dark staining depends upon the presence of a coloured material in the basal cells. It affects only the protoplasm of these, leaving the nucleus free. The reaction also occurs in two forms—namely, a diffuse and a granular form, and each of these may occur in any degree of strength. The diffuse form may exist alone, but the granular is almost always combined with the diffuse.

In man this reaction may be quite slight and is usually discontinuous, so that strongly-reacting cells alternate with weakly-reacting cells, or even with cells which show no reaction at all. The reaction also varies in position. It practically always shows itself as strongest in the stratum germinativum but extends upwards more or less far in proportion to the intensity of the reaction. It is primarily found in the basal layer and in the external root-sheath of the hair follicles.

In the hair itself the reaction is limited to the epithelium of the hair-bulb and consequently only the matrix shares in the process.

The reaction is never found in cells of mesodermal origin, in fact, with the exception of nævus cells, never in the cutis vera. The dark staining of the leucocytes and secretory epithelium of the sweat-glands depends on the presence, as already described, of phenolase, and has nothing to do with the reaction under discussion—"dopa reaction." Two forms of cell are found with the coloration—one not differing much, if at all, from ordinary epithelium; and a second with long dendritic processes. The dendritic cells are also found in nævus and in the outer layer of carcinomatous ingrowths.

What is the meaning of the dopa reaction?

The process which is described as dopa reaction results from the oxidation of the dioxyphenylalanin as a related reagent and results from the oxidation and also no doubt the condensation of the molecule into a dark melanin-like body—"dopa melanin."

The cause is the oxidation of the dioxyphenylalanin, "dopa," by a ferment in the cells which Bloch names "dopa oxidase." It is an extraordinarily labile ferment and is not destroyed by prussic acid but by all sorts of other chemical and physical influences, *e. g.* reducing and oxidising substances, H_2S, toluol, heat, drying, etc.

Even distilled water, saline, and dextrose solution diminish its activity. On the other hand, ether, chloroform, acetone, benzol, and alcohol do not damage it. Bloch did not succeed in extracting it in solution, but could prove its presence in watery emulsions of the skin.

After many experiments dioxyphenylalanin was the only body which Bloch could find to be acted upon by the ferment. Even the slightest modification of the constitution, whether by acting on the aromatic nucleus or the aliphatic side-chain, spoiled the reaction. Neither tyrosin, homogentisinic acid, tryptophane, nor even adrenalin gave the reaction. (Other instances with structural formulæ are given.)

The ferment action is very variable, and can be increased by radiation from the Quarz lamp, Röntgen rays, and thorium-x.

According to Bloch the function of the oxidase is to form the normal pigment or melanin of the skin. The strength of the reaction varies according to the activity of the pigment formation in the skin, *e. g.* skin of the negro, skin of a psoriasis patient treated with arsenic and chrysarobin, pigmented nævi, freckles, and the dark part of a vitiligo patient.

The hyperpigmentation which occurs after destruction of the suprarenals depends, not like most hyperpigmentations of the skin, upon an elevation of ferment action, but upon an increased supply of the material from which the pigment is made.

In brown and white variegated animals the ferment may be demonstrated in the pigmented but not in the albino patches. Also in vitiligo the dopa reaction disappears parallel with the loss of pigment in the skin.

For the eye-pigment similar researches have up to the present given negative results.

In Urticaria pigmentosa while the reaction in the epidermis was fairly strong none could be detected in the mast cells. The dendritic cells may also be shown by metallic impregnation, *e. g.* silver nitrate, and Bloch holds that they are identical with "Langerhan's cells." They are much more clearly shown by the dopa reaction than by metallic impregnation. They are very variable in number and in depth of staining. Indeed, there are some cases of normal skin in which almost every reacting cell is provided with processes. As a general rule increased pigmentation means increased dendritic cells, but there

are exceptions. They were increased in hyperpigmentation from raying with thorium-x ; on the other hand, in the skin of the negro they were very scanty, as also in the skin of a rabbit exposed to the Quarz lamp. Also in a case of post-psoriatic pigmentation almost the whole of the increase was found in ordinary basal epithelial cells.

Bloch, therefore, cannot see his way to accept as absolutely proved the teaching of Kreibich that "the melanoblast is a descendant of the epithelial cell in so far as it is capable of pigmentation. It is differentiated from it in every case where special demands are made on the pigmentary function."

As regards the chemical constitution of pigment, it is probably the result of the action of the oxidase on some body related to dioxyphenylalanin. In destruction of the suprarenal body the pigmentation is probably due to the presence of an increased amount of this body in the circulating blood, and thus an increased supply to the skin.

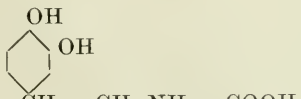
This body Bloch believes to be actually dioxyphenylalanin on the following grounds :

(1) In all his experiments on the capabilities of the dopa oxidase, 3·4-dioxyphenylalanin was the only body attacked by the ferment.

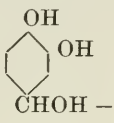
(2) As he and Löffler proved the hyperpigmentation of the skin in Addison's disease is due to the flooding of the skin with the mother substance of normal pigment. It is probable that this results from the incapability of the diseased suprarenal to use this substance in the manufacture of adrenalin. The skin therefore takes on a regulating function. Pigment and adrenalin are end products or intermediary products of the same original material, steps in the cycle of pyrocatechin metabolism.

Now, adrenalin has as its structural formula :

a pyrocatechin derivative, the production of which out of 3·4-dioxyphenylalanin :



can be conceived through the hypothetical intermediate step of dioxyphenyl-a-methylamino-β-oxypropionic acid



(3) Bloch reminds that the quality of the finished pigment of reducing metals is an especial faculty of the pyrocatechin bodies in consequence of the ortho-position of the OH groups.

This abstract has taken so much space that I hesitate to trespass much further in order to abstract the other two with any completeness, but I may say at once that they only work out details to fit in with the main paper already abstracted.

The vitiligo paper may be stated merely to contain the experimental proof that in the hyperpigmented areas the dopa oxidase is in excess of the normal, and in the leucodermic areas it has disappeared.

Of Lutz's paper on the effects of raying, the same may be said as regards its being contributory evidence in support of Bloch's contention. The conclusions may be shortly summed up as follows:

(1) Slight raying causes some swelling of the epithelial cells, strong raying causes intercellular vacuoles, liquefaction of cells, leucocyte emigration, and necrosis of the epidermis. This is more quickly produced in albino skin than in the normal.

(2) Raying (Quarz lamp, Röntgen, and thorium-x) has a specific influence on the pigment producing ferment of the skin.

(3) This effect is produced only in those parts where dopa oxidase is normally present and is absent in albino skin.

(4) This ferment is, after a possible initial diminution, increased in activity (strengthened) in cells where it was present before, or appears freshly in cells where it was absent before.

(5) The increase or new appearance of the oxidase is shown by the increase of the dopa reaction.

(6) The dopa reaction zones become greater and broader.

(7) Hand in hand with this reaction goes the increase of normal pigment.

(8) The cells in which the reaction appears may be of normal epithelial shape or may have processes.

(9) The ferment-activating action of the rays affects only cells of

Malpighian layer (and by strong raying some of the prickle cells), the basal cells of the follicle, of the outer root-sheath, and of the hair matrix.

Note by the Abstractor.

This interesting piece of work goes far to carry conviction, and should not be very difficult to control if the substance dioxyphenylalanin can be obtained from the broad bean. There is a point perhaps worthy of recording which occurs to me. Some years ago I was called into the wards to see a case of so-called hyperpigmentation. I found a child who was in a bad state of health, and on the skin was a typical leucodermia with exaggerated surrounding melanodermia. That is, there was a general deepening of the pigment with discs and polycyclical areas of complete pigment atrophy. This child died a week or two later, and was found to be suffering from extensive tuberculosis with destruction of the suprarenals. From that time forward I have always looked upon leucodermia as in some way connected with aberration of the suprarenal function. Bloch's theory would appear to clash with the undoubted clinical facts here recorded, unless we presume the coincidence, by no means impossible, of two diseases, namely an ordinary leucodermia *plus* Addison's disease, which accounted for the increased melanodermia on the non-leucodermic areas.

A CASE OF RAPIDLY FATAL MYCOSIS (GRANULOMA) FUNGOIDES.

By F. PARKES WEBER, M.A., M.D., F.R.C.P.

The patient, F. L—, a single woman, aged 53 years, was admitted to hospital on September 4th, 1917, with a florid eruption of somewhat raised, red, or purplish discs or plaques of all sizes, chiefly on her trunk. There were also fungating ("mycotic") growths and large crateriform ulcers. The general appearance is well shown by photographs taken on September 16th, 1917 (see Figs. 1 and 2). The Wassermann reaction, on September 5th and again on September 13th, was weakly positive, but it is highly probable that in cases of Mycosis (granuloma) fungoides the Wassermann reaction is sometimes positive

without there being any genuine syphilitic taint. The liver, spleen, and superficial lymphatic glands were not decidedly enlarged. The urine was free from albumen and sugar.

The disease was said to have commenced gradually about April 1917. Some years previously (1910 and 1911) the patient had been in a lunatic asylum, where at first she was in a state of acute delirious mania and afterwards suffered from auditory and visual hallucinations.

In the hospital her temperature was of a septic, "up-and-down" type, varying from about 98° F. in the mornings to about 102° F. in the evenings. She derived much relief from sitting or lying for a great part of the day in a tepid bath, and her appetite was usually good in spite of the pyrexia. Arsenical treatment and the use of tincture of perchloride of iron made apparently no decided difference. A trial of potassium iodide seemed to exert rather an injurious than a beneficial effect. The septic pyrexia continued, and the patient gradually became weaker and died on November 27th, 1917.

During the last days of life, probably owing to extreme exhaustion, the temperature was subnormal. In October the sputum had been examined for tubercle bacilli, but with negative result. Blood-counts had been made on two occasions—September 10th and November 16th. On the first occasion the resulting data were as follows: Hæmoglobin, 110 per cent.; red cells 4,400,000, and white cells 13,300 in the cubic millimetre of blood; colour-index, 1·25. Of the white cells 85 per cent. were classed as polymorphonuclear neutrophiles, 6 per cent. were lymphocytes, 7 per cent. were eosinophiles, and 2 per cent. were basophiles. At the second examination (November 16th) the report was: Hæmoglobin, 98 per cent.; red cells 3,300,000, and white cells 8000 per cubic millimetre of blood; colour-index, 1·5. The erythrocytes showed slight poikilocytosis. A rough differential count of the white cells gave 90 per cent. polymorphonuclear neutrophiles, 5 per cent. lymphocytes, and 5 per cent. eosinophiles.

Necropsy (November 27th, 1917).

The *heart* (weight, 9 oz.) showed endocarditis of the mitral valve, probably of the nature of secondary malignant endocarditis. The *spleen* (weight, 11 oz.) was slightly enlarged and contained two embolic infarctions, which were commencing to soften ("break down"). The *liver* (weight, 58 oz.) had a somewhat nutmeggy

Fig. 1.—To show the general appearance of the infiltrated (granulomatous) and ulcerated skin of the patient, F. L—, in September, 1917.

TO ILLUSTRATE DR. PARKES WEBER'S CASE.

Fig. 2.—To show the large crateriform ulcers of the granulomatous skin of the trunk, in September, 1917.

TO ILLUSTRATE DR. PARKES WEBER'S CASE.

appearance, suggesting the presence of a "centro-acinous" toxæmic change. The *kidneys* (weight together, 8 oz.) showed nothing special, unless very slight chronic interstitial nephritis. There was a small uterine fibromyoma. The other viscera showed nothing macroscopically pathological. There were no internal tumours. There was no tuberculous lesion in the lungs, but an enlarged tracheal lymphatic gland was removed for microscopic examination. The brain weighed 44 oz. A specimen of cerebro-spinal fluid obtained at the post-mortem examination gave a negative Wassermann reaction

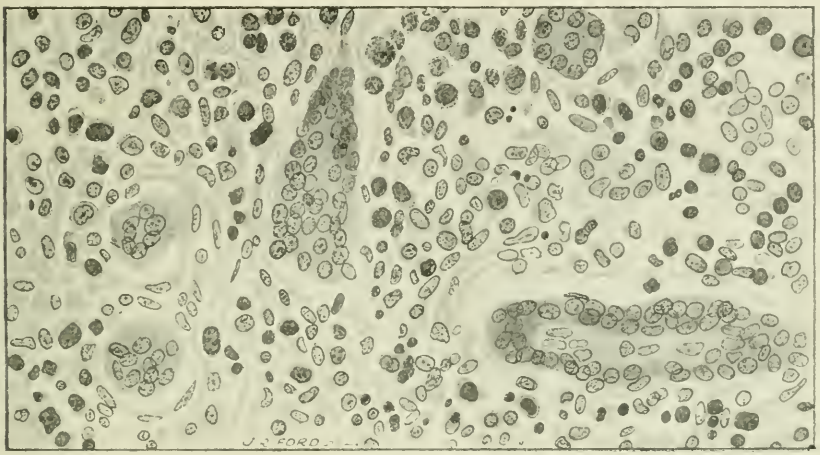


FIG. 3.—Microscopical appearance of the granulomatous, but not yet ulcerated skin. (Magnification × 300.)

MICROSCOPICAL EXAMINATION.

Sections (see Fig. 3) from a part of the skin which was affected (granulomatous), but which had not yet become ulcerated or necrotic, showed a diffuse (superficial and deep) permeation of the corium with proliferating connective-tissue cells, together with a certain number of lymphocytes and plasma-cells. These connective-tissue cells, which separated the fibres of the corium, showed no tendency to the formation of fibroblasts, that is to say, to the production of fibrous or cicatricial tissue. The epithelium of many of the sweat coils was proliferating, the lumen in some cases being filled up by the proliferating cells, so as (in transverse or partial section) to simulate the appearance of large giant or syncytial-like cells.

The splenic pulp was infiltrated with cells apparently similar to those permeating the skin, but some of the Malpighian lymph-follicles could be still distinguished. The enlarged tracheal lymphatic gland (see back) contained typical giant cells of tuberculous type and patches of commencing caseation; evidently it was tuberculous, though by special staining no tubercle bacilli were demonstrated in it. Sections of the liver showed fatty infiltration and a centro-acinous degenerative change, resembling that found in "nutmeg livers" and in certain toxic conditions of the liver (due to chloro-

form, septic processes, etc.). Sections from one kidney, one supra-renal gland, the thyroid gland, and the pituitary gland showed nothing special. Sections of spleen, liver, lymphatic glands, etc., were stained with methyl-violet for amyloid (lardaceous) changes, but with negative result. I have to express my indebtedness to Dr. H. Schmidt for great help in regard to the clinical, and especially the pathological, examination of the case, and to Mr. S. G. Shattock for kindly looking at and reporting on some of the microscopic sections.

Remarks.

Doubtless the reason why the disease ran a relatively rapid, fatal course in the present case was the occurrence of grave secondary septic complications, which were manifested by the pyrexia, the endocarditis, and the softening ("breaking-down") embolic infarctions in the spleen. In E. Gaucher's "Maladies de la Peau" (*Nouveau traité*

de médecine, by Brouardel, Gilbert, and Thoinot, Paris, 1909, fasc. xiv, p. 304) it is stated that Mycosis fungoides ordinarily lasts three, five, eight, or even twelve years, but that exceptionally it may develop rapidly and lead to death in six months. Ordinarily there are remissions (and the obvious lesions may even disappear) during months or even for a year. In Gaucher's account of the disease, microscopic sections of the skin are figured, after Dominici, as showing the presence of giant or syncytial-like cells. It might perhaps be suggested that those cells (or some of them), as figured after Dominici, were really "pseudo-syncytial" cells, due to proliferation of the epithelium of sweat coils, such as was a striking feature in the microscopic examination of the present case.

A CASE OF PRURITUS IN HODGKIN'S DISEASE—LYMPHOGRANULOMATOSIS PRURIGINOSA.*

By F. PARKES WEBER, M.D., and P. W. DOVE, M.B. (Capt., R.A.M.C.).

The patient, G. M—, aged 34 years, is a well-built, but rather thin, man, with considerable brownish pigmentation of the skin, especially in connection with numerous small papules on the trunk and thighs (see Figs. 1 and 2)—a pruriginous eruption, which has been associated with much itching (and consequent scratching), varying in degree from time to time. Some of the papules are reddish and in an active (irritable) condition, whilst in others there is no sign of active hyperæmia at present. There is moderate, painless, enlargement of the cervical, axillary, and inguinal lymphatic glands on both sides; one of the enlarged glands in the right axilla and one in the right groin have only recently appeared. There is likewise evidence of enlargement of lymphatic glands in the mediastinum, according to the findings by Roentgen ray examination last year. Otherwise the viscera seem not to be diseased, and the spleen and liver appear not to be abnormal in size. There is no evidence pointing to there having been any venereal infection. The knee-jerks are present and the pupils react to light. A blood-count (September, 1917) gave: hæmoglobin 100 per cent.; red cells 5,200,000, and white cells 8900, in the cubic millimetre of blood.

* The case was described at the Dermatological Section of the Royal Society of Medicine on March 21st, 1918.

Microscopical examination of a blood-film showed nothing special. Of the white cells 84 per cent. were polymorphonuclear leucocytes. One of the nodules from the skin of the front of the abdomen, slightly larger and more deeply situated than the ordinary papules, was excised by Dr. H. Schmidt, for "biopsy" purposes, in September, 1917, but microscopic examination showed only a chronic inflammatory fibrosis and a little small-cell infiltration.

According to the history obtained, the illness commenced in September, 1916, with itching and small reddish spots on the skin. Two months later some glandular nodules on the left side of the neck were observed, and then the patient suffered from cough, fever, and sweating. In February, 1917, the enlarged left supraclavicular glands were very noticeable. In September, 1917, there was a considerable packet of enlarged lymphatic glands on the left side of the neck and in the left supraclavicular region. On the body and limbs there were many papules; some of them were acne-like in appearance, and most of them were reddish; but one or two were slightly larger and deeper and without any red coloration of the skin over them. The man's general condition and symptoms have varied from time to time. Sometimes the affected lymphatic glands have been larger, sometimes smaller; sometimes there has been troublesome cough, and in January, 1918, there was considerable dyspnœa (possibly in connection with enlargement of mediastinal lymphatic glands); sometimes the patient has complained of sweating and insomnia; occasionally there has been pyrexia; once there was troublesome diarrhœa: at times also there has been much loss in body-weight. In regard to the cutaneous symptoms sometimes there have been exacerbations of the pruritus with increased irritable redness of the prurigo-like papules. But frequently there have been exacerbations of pruritus, in which the itching has been referred to the papules, without the latter showing any fresh hyperæmic or inflammatory change. Since the commencement of his illness the patient has lost much hair from the scalp, face, axillæ, and pubic region; and the hair of his eyebrows, which used, he says, to be "bushy," has become short and scanty. During the earlier part of the illness the presence of scabies was suspected, and diminution of cutaneous irritation, when it occurred, was regarded as a result of successful treatment against scabies. Arsenical treatment was tried

in 1917, but was given up on account of soreness of the eyes. According to the patient himself most of his periods of improvement have occurred when he has been under thyroid treatment; they were accompanied by a sense of general well-being, but he believes that he has generally lost weight at the same time. In regard to the use of thyroid gland extract in other more or less similar cases we shall make some remarks further on. Warm baths and the application of vinegar at one time seemed to have a good effect on the cutaneous

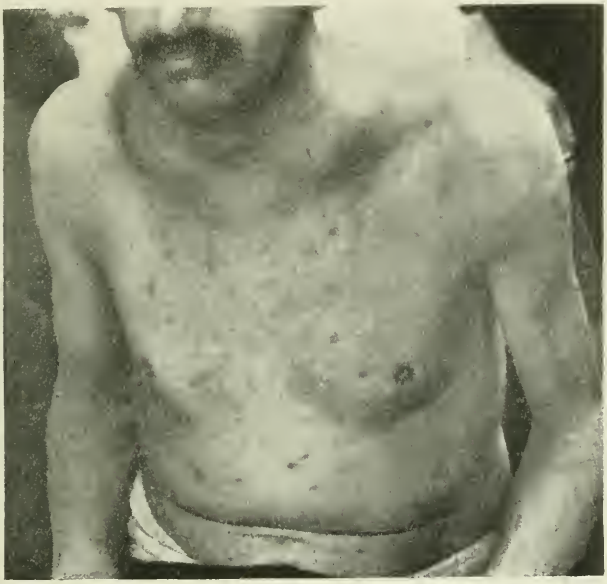


FIG. 1.—Case of G. M—. February, 1918. Photograph to show the pigmentation of the skin and the enlargement of the supraclavicular lymphatic glands.

irritation. For sweating and sleeplessness a little morphine and belladonna was found to give temporary relief, but belladonna had to be discontinued on account of dryness of the mouth. During exacerbations of cutaneous irritation bromides, internally, and lead lotion and calamine lotion, locally, gave no relief.

REMARKS.

Although at the commencement of the illness the case was regarded as one of scabies, there can now be no doubt that it is one of prurigo-

like pruritus in Hodgkin's disease (Lymphogranulomatosis maligna)—and that from the clinical point of view it may be termed "Lymphogranulomatosis pruriginosa." One of us (F. P. W.) believes that the commonest blood-change found in cases of Hodgkin's disease is a polymorphonuclear leucocytosis, with or without decided simple anæmia, excepting in late stages of the disease with chronic enlargement of the spleen, when more or less leucopenia is common. The contention of Pinkus that the blood-picture always shows a relative

FIG. 2.—Case of G. M—, February, 1918. To show some prurigmous papules on the upper front of the right thigh.

lymphocytosis has been opposed by Dock (the American editor of his article in Nothnagel's *Encyclopædia of Medicine*), Cabot, Da Costa, Longcope, Byrom Bramwell, and others.

A good deal has been written on the subject of pruritus and pruriginous skin eruptions in Hodgkin's disease, especially prurigo-like papules (formerly referred to under the heading "Pseudo-leukæmic prurigo"); these papules must be distinguished from the nodular growths in the skin (seldom associated with pruritus) which occasionally constitute a striking feature in cases of leukæmia, especially

atypical leukæmia. H. D. Rolleston (1) shortly discussed the subject in an article in the *British Medical Journal* in 1909 entitled "Pruritus in Lymphadenoma." In regard to the associated cutaneous pigmentation, W. G. Longcope writes (2): "Aside from the pigmentation which may follow the use of arsenic, a brownish discoloration or mottling, which is usually associated with enlargement of the retroperitoneal lymph-nodes, is seen occasionally." A case in some respects very similar to the present one is that recorded by Byrom Bramwell (3) in 1909. The patient was a man, aged 43 years, in whom, about one year before lymphatic glandular enlargement was first observed, the skin symptoms commenced, namely, pruritus, recurring crops of pruriginous papules, and pigmentation, which resembled that of Addison's disease, though at the subsequent post-mortem examination the suprarenal glands appeared normal. In the present case, as in Bramwell's case, the pruritus and cutaneous (prurigo-like) pruriginous papules made their appearance before any lymphatic glandular enlargement was observed. Rolleston (4) remarks that pruritus, though a relatively rare symptom, may nevertheless be one of the earliest manifestations of the lymphatic glandular disease, appearing before any glandular enlargement has been noticed, and even causing the patient first of all to seek the advice of a dermatologist. He quotes the case of a man who came under Sir Cooper Perry's observation for pruritus, with so-called lichenisation of the skin due to scratching; the inguinal glands were enlarged. The question of Hebra's prurigo was raised. The diagnosis of the lymphatic glandular disease was proved by a subsequent post-mortem examination. Rolleston adds that pruritus may also occur late in the disease. "It may disappear as the disease advances, and may appear and disappear again and again."

In the case of a man (S. B—, aged 35 years), admitted to the Westminster Hospital in 1908 under Dr. R. G. Hebb, more or less cutaneous pruritus and lymphatic glandular enlargement had existed for several years already, but the pruritus seems to have preceded the glandular enlargement. Later on, in 1910, a prurigo-like eruption of papules was superadded to the pruritus, and there were definite vesicles over some of the papules. It was stated in the description that the eruption was of a dusky red colour, and that some of the papules had vesiculated summits; in many parts the

papules formed small or large aggregations. A microscopical examination of the skin ("biopsy") showed some (apparently inflammatory) small-cell infiltration, as in the present case.* In one (the third) of C. Kreibich's cases (5) an extensive itching affection of the whole body was followed in six months by the appearance of lymphatic glandular swellings in the neck and axillæ; there was likewise a recurrent papular eruption on the skin.

Wechselmann (6) has written on the disease (in a man aged 44 years) being complicated by universal Exfoliative erythrodermia. In his case some of the glands suppurated and they were scraped, and at the same time the most enlarged glands amongst those that had not suppurated were excised. This operation was followed by (at all events temporary) diminution in the cutaneous itching. It should be noted that in Wechselmann's case, as in the present case, treatment was at one time directed against scabies, from which it was suggested that the patient was suffering. Bruno Bloch (7) has described the case of a woman, aged 52 years, in whom Hodgkin's disease was complicated by a cutaneous condition of "Erythema toxicum bullosum." It has apparently been maintained by some that generalised Exfoliative erythrodermia or "Érythrodermie pityriasique" (of French authors) may also complicate tuberculous lymphatic glandular disease, and amongst other authors papers have been written by O. Müller (8), August Halle (9), and E. Brunsgaard (10), on the association of tuberculosis with universal Exfoliative erythrodermia or Pityriasis rubra.

One of us (F. P. W.), in 1907, saw a well-developed man (A. L. P—), aged 35 years, suffering from Hodgkin's disease, in whom enlargement of lymphatic glands in the neck, axillæ, and groins had been present for at least two or three months, whilst pruritus had been troublesome on and off (especially at night) for about twelve months. There had been some cutaneous pigmentation for the last four weeks or so. He had a red, scaly rash on his legs, a good deal of pigmentation on the trunk, and a highly-coloured face. In January, 1908, it was reported that the patient had become an *homme rouge*, with a kind of universal Exfoliative erythrodermia; he

* The case was described on the printed *Agenda* of the meeting of the Clinical Section of the Royal Society of Medicine on June 10th, 1910, but unfortunately the patient could not come to the meeting.

died about August, 1908. In that case it was claimed that treatment with thyroid extract had (as in the present case) given some relief in respect of the cutaneous irritation. In connection with the question of thyroid treatment, it should, moreover, be noted that, in the present case, there has been much loss of hair (see back). In R. G. Hebb's case (above referred to) there was loss of hair of the scalp and eyebrows. In Byrom Bramwell's case (likewise above referred to) there was loss of hair and altered character of hair; thyroid extract was used as a palliative. The hair became "very fine and silky though dry, and lighter in colour than it used to be." Byrom Bramwell added (11) that he was particularly interested in these features of the case, for some fifteen years previously he had met with a case of Hodgkin's disease in which the same group of symptoms was present—deep pigmentation of the skin suggestive of Addison's disease; a pruriginous eruption which had preceded the development of the glandular enlargement by two years. In that earlier case of his the cutaneous eruption was not only papular but (as in R. G. Hebb's above-noted case) vesicular in character. There was the same alteration in the condition of the hair. That patient was a woman, and, prior to the onset of the disease, she had had a great quantity of dark-brown hair; as the disease developed she became almost bald, and the hair became altered in character—much lighter in colour, much finer, more silky, and more dry in texture.

The tendency in pruriginous cases of Hodgkin's disease (Lymphogranulomatosis maligna) for the itching (with or without cutaneous eruption) to precede obvious enlargement of lymphatic glands may well be compared to the development of the granulomatous tumours in cases of Mycosis (Granuloma) fungoides being usually preceded by a more or less generalised skin eruption of some kind—the so-called "pre-mycotic" manifestations of the disease.

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(4) Rolleston, H. D.—*Loc. cit.*

(5) KREIBICH, C.—*Arch. f. Derm. u. Syph.*, Vienna, 1908, lxxxix, p. 43 (third case, p. 58).
(6) WECHSELMANN.—*Ibid.*, 1907, lxxxvii, p. 205.
(7) BLOCH, BRUNO.—*Ibid.*, 1907, lxxxvii, p. 287.
(8) MÜLLER, O.—*Ibid.*, 1907, lxxxvii, p. 255.
(9) HALLE, AUGUST.—*Ibid.*, 1907, lxxxviii, p. 247.
(10) BRUUSGAARD, E.—*Ibid.*, 1903, lxvii, p. 227.
(11) BRAMWELL, BYROM.—*Loc. cit.*, p. 139.

A CASE OF CUTANEOUS TUBERCULOSIS FOLLOWING THE OPERATION OF TATTOOING.

BY S. E. DORE, M.D.

AT a time when tattooing is likely to become more prevalent, the following case may be of interest:

The patient was shown by me at a meeting of the Dermatological Section of the Royal Society of Medicine on July 17th, 1913, but I was prevented from publishing the case in detail at that time. The patient, an artillery officer, aged 29 years, with no definite history of previous tuberculosis, was sent to me on July 16th, 1913, by Mr. Percy Sargent. Five years previously he had been tattooed with the device of a flying drake on the right forearm and that of a fox's head on the left forearm. The operation was successful, and was not followed by an undue amount of inflammation or any subsequent trouble. Three years later he had the design touched up by the same operator. A year and ten months after the retouching he noticed a small swelling on the tattoo mark on the right arm in the situation of the drake's back, followed a few days later by the appearance of numerous minute raised spots on the wings and body of the drake and on the fox's tongue and ears on the opposite arm. When I first saw him on July 16th there was a raised plaque with well-defined edges and a flattened slightly ulcerating surface, measuring about 1 in. in length and ½ in. in breadth on the right tattoo mark in the position of the drake's back and about a dozen small conical papules on the wings and body; on the left arm similar small papules of more recent occurrence marked the tip of the fox's tongue and the points of the ears. The papules varied in size from a pin's head to a small pea, and some of the larger ones showed a minute central depression

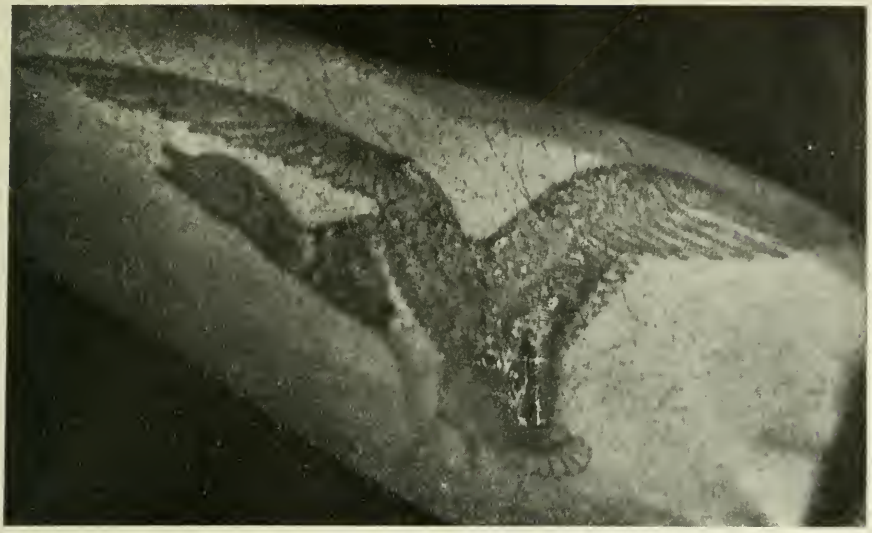


Fig. 1.—Design tatooed on left forearm, showing tuberculous ulcer and papular eruption.

Fig. 2.—Section through ulcer, showing tuberculous infiltration, giant cells, and pigment.

TO ILLUSTRATE DR. S. E. DORE'S CASE OF CUTANEOUS TUBERCULOSIS FOLLOWING TATTOOING.

resembling a papulo-necrotic tuberculide. All the lesions were situated within the tattooed area, and, in the patient's opinion, corresponded with the points which had been retouched. In the right axilla there was a chain of enlarged glands. At the meeting of the Section the condition was thought to be tuberculous, and the alternative diagnoses of cheloid and syphilis were dismissed. The treatment decided upon was X-rays, with excision as an alternative. On July 19th a Sabouraud pastille dose was given to the affected areas on both arms. A few days later the plaque on the right arm broke down to form an ulcer which had every appearance of a tuberculous lesion. The ulcer was excised and grafted by Mr. Sargent, and satisfactory healing was obtained. Sections of the ulcer showed the characteristic appearances of tuberculosis with pigment in the deeper layers of the skin. The eruption of papules remaining unchanged, a second pastille dose of X-rays was given on September 30th to both patches, including the area which had been grafted. When the patient was seen again on October 27th there was slight pigmentation of the exposed area on the right arm, and the papules were somewhat flatter and smaller, although none had disappeared. On the left arm the papules had increased in number, the fox's head being now studded with minute closely aggregated raised papules. The pastille dose was repeated on this date and again on November 25th, both areas being exposed. On December 23rd many of the papules had disappeared, leaving slight atrophy of the skin, and after a further exposure nothing remained of the disease except a few minute, shiny, atrophic macules, and treatment was discontinued.

The points of interest arising in this case are: (1) The rarity of tattooing as a source of infection in cutaneous tuberculosis. (2) The length of the incubation period—assuming that the tattooing was the cause of the lesions. (3) The coincident development of a tuberculous ulcer and an eruption of necrotic papules limited to the area of the designs.

Numerous cases of syphilitic infection from tattooing are recorded, and other conditions complicating the operation, such as hæmorrhage, abscess, gangrene, erysipelas, lymphangitis, cheloid, and lepra have been noted from time to time, but the number of recorded cases of "tattoo lupus" is extremely small. Cutaneous tuberculous may be

inoculated in various ways. Among the sources of infection Wild* recorded four cases of lupus of the ears from ear-piercing, seven cases of lupus of the gluteal region from broken chamber utensils or the seat of a commode, and three cases of tuberculosis verrucosa cutis on the wrists and hands resulting from washing the linen of patients suffering from pulmonary tuberculosis. Dubreuilh collected seventeen cases of tuberculosis of the penis following ritual circumcision in which the operator was suffering from pulmonary tuberculosis, but the only cases of tuberculosis from tattooing I have found in the literature are one by Heller (quoted by Ullmann), in which tuberculosis was contracted through treating a tattooing with cow's milk; a case reported by Jadassohn of the development of lupus upon the site of a tattoo mark, in which the operator suffered from phthisis and mixed the pigments with his own saliva; and three cases recorded by Collings and Murray (*British Medical Journal*, 1895, i, p. 1200), in 1895. The last are of sufficient interest to be mentioned in detail.

A boy, aged 15 years, tattooed his brothers, aged 13 and 10 years respectively, a short time before his death from phthisis, using Indian ink mixed with saliva in the palm of his hand. He also tattooed a friend, aged 15 years, but there was no direct evidence in this case that saliva was used.

W. N—, aged 13 years, was tattooed on the flexor surface of the right forearm, the design being a heart crossed by two flags with a rose below. When seen on November 12th, five weeks after inoculation, the rose was principally affected, and consisted of a mass of pustules, the remaining part being covered with white scabs. The pustules scattered over the front of the arm were said to have appeared only after the application of a poultice.

A. N—, aged 10 years, was tattooed on October 10th with the same design, but without the rose. On November 12th, a month after the operation, the pattern, especially the flags, was raised and covered with scabs, and pus was seen escaping at several points.

J. H—, aged 15 years, was tattooed on October 18th, and was first seen on November 7th, three weeks after the operation. The design, which was similar to that in the last case, was raised, indurated, and

* *Brit. Med. Journ.*, November 11th, 1899, p. 1353.

covered with scabs. The patient then poulticed the arm, and when next seen the scabs had come off leaving, in lines of the pattern, deep ulcers with hard, round, smooth edges and granulating bases. The whole design was raised and surrounded with an erythematous border. The general health of the boys did not seem to have suffered with the development of the local lesions. A piece of skin from J. H—'s arm was excised, and well-marked giant cells were found in the corium immediately under the Malpighian layer, although the presence of bacilli was not demonstrated.

On December 11th, J. H— and W. N— were shown at the late Sir Jonathan Hutchinson's museum, and he was of the opinion that the condition had been produced by the inoculation of tubercle.

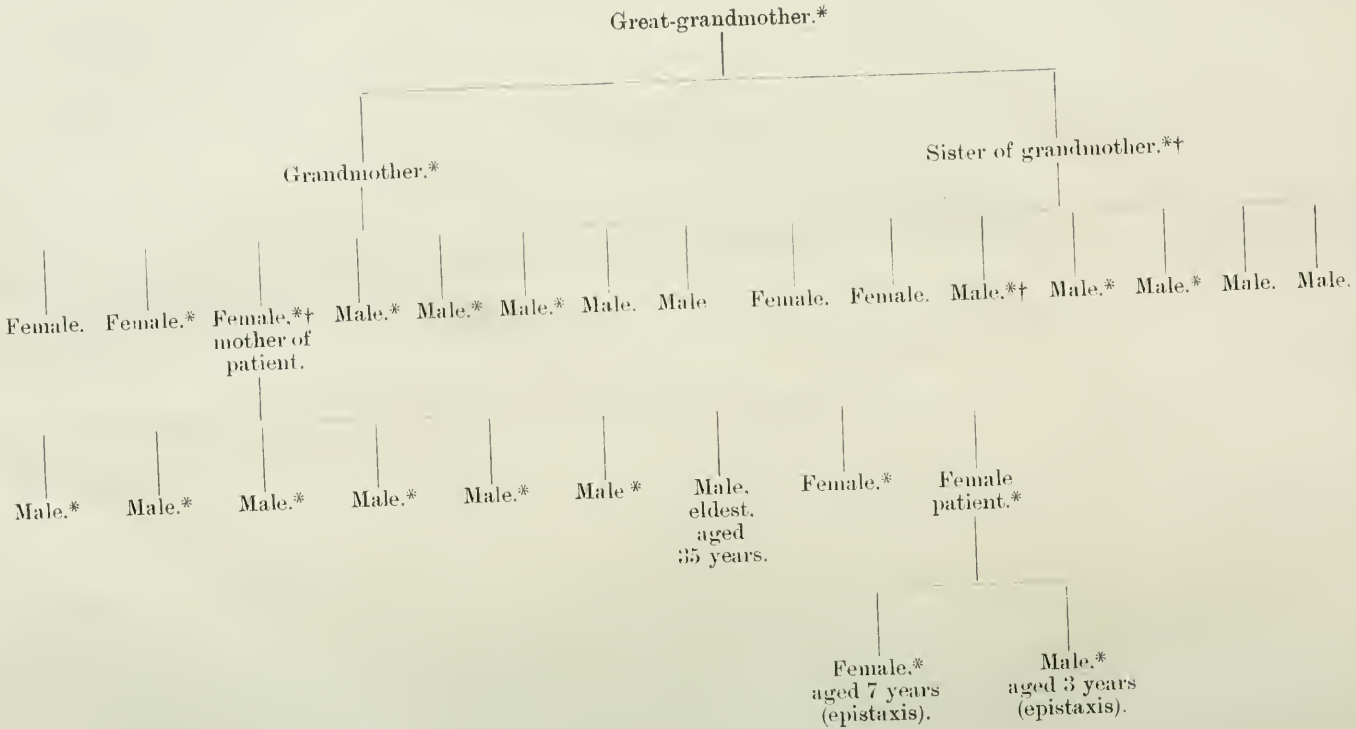
The period of time intervening between the retouching of the designs and the development of the lesions in my case is probably not too long to exclude the tattooing as the source of infection. Every dermatologist is familiar with the long periods of latency exhibited by the tubercle bacillus in cases of lupus, and it is probable that, owing to the pigments employed in the tattooing and the peculiar nature of the operation, the infecting material might become attenuated and the bacilli encapsuled. The same reasons may perhaps account for the coincident development of a tuberculous ulcer and a papular tuberculide.

HEREDITARY ANGIOMATA (TELANGIECTASES) WITH EPISTAXIS.

By S. NORMAN PAUL, M.B., Ch.M.,

Hon. Assistant Physician for Diseases of the Skin, Sydney Hospital.

The series of cases about to be described, and the first to be reported from Australia, are identical with those recorded in 1907 by Prof. Osler, under the title of "A Family Form of Recurring Epistaxis, Associated with Multiple Telangiectases of the Skin and Mucous Membranes," and by Parkes Weber under the title of "Multiple Hereditary Developmental Angiomata (Telangiectases) of the Skin and Mucous Membranes, Associated with Recurrent Hæmorrhages." There are of especial interest on account of the remarkable family history. Although, personally, I have only examined the patient and



* Shows the individuals suffering from the disease.

† Died of anæmia.

Fig. 1.

TO ILLUSTRATE DR. NORMAN PAUL'S PAPER

Fig. 2.

TO ILLUSTRATE DR. NORMAN PAUL'S PAPER.

her children, yet the clinical condition, the previous and concomitant hæmorrhages, and the occasional deaths arising therefrom, have so impressed themselves on the patient, that I was able to obtain from her a clear and lucid statement of the family history.

Family history.—The disease can be traced back as far as the great-grandmother, and both her daughters, *i. e.* the grandmother of the present patient, and her sister exhibited the condition. The latter died of anæmia, and of her family of five sons and two daughters, three of the sons are known to have been affected, one of these dying from anæmia. Reverting to the direct ancestors of the patient, the grandmother had a family of eight children, consisting of five sons, three of whom were affected, and three daughters, of whom two were affected. Of the latter, one, the mother of the patient, died of anæmia, and of her family of seven sons and two daughters, six sons and two daughters are affected. The patient states that "one of the brothers has a number of similar spots on the shoulders and abdomen, and another has a like condition affecting his waist." The members of the patient's family, a boy, aged 3 years, and a girl, aged 7, have recurrent epistaxis, but no angiomata. Both the patient's mother and grandmother had angiomata beneath the finger nails and on the fingers, as well as those situated on the face and mucous membranes.

Case record.—The patient, A. H—, a healthy and intelligent woman, aged 32 years, states that frequent bleeding from the nose in childhood is the first indication of the disease; this recurrent epistaxis continues, and about adult life angiomata appear, which increase in size and number with advancing years. Scattered over the patient's face, without showing any tendency to be aggregated, are the bright red angiomatous lesions, about a dozen or more on each side, whilst a few are distributed over the forehead, chin, and nose (Fig. 1). In size they vary from pin-point to millet seed, the former predominating. The mucous membrane of the lips is extensively involved, whilst the buccal mucous membrane and the fauces are free. The tongue shows numerous angiomata, and in the centre there is one which measures five millimetres across, this being the largest lesion on either the cutaneous or mucous surfaces. There are a few telangiectases on the hard palate, and on the conjunctival surfaces of the eyelids. An angioma on the nasal mucous membrane, from which

hæmorrhage frequently took place, was destroyed by radium, with the result that the epistaxis had been greatly minimised. Examination of the hands shows a few telangiectases on the palmar surface of the left hand, with a few on the dorsal surfaces of the fingers of the same hand, as well as one on the dorsum of the little finger of the right hand. The appearance of the patient does not suggest anæmia, and this opinion is verified by the blood-count, which is as follows: Red blood-cells, 5,110,000; white blood-cells, 12,200; polymorphs, 50 per cent.; large lymphocytes, 16 per cent.; small lymphocytes, 31 per cent.; large mononuclear, 1 per cent.; eosinophils, 2 per cent. No nucleated red cells seen, reds normal in size and shape, no polychromatophilia. There was no tendency to hæmophilia, nor did there appear to be any mental dulness or deficiency. An angioma was removed from the upper lip, and showed (Fig. 2) in the superficial portion of the corium numerous dilated vessels, and blood-distended cavities (*a*), with a flattening out of the papillæ. The condition is one, which although definite and distinct, is liable to pass unnoticed and unrecognised by those outside the sphere of dermatology, on account of its almost complete absence from dermatological works.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on October 18th, 1917, Dr. J H. Stowers, Vice-President of the Section, in the Chair.

Dr. J. L. Bunch showed a case of *Erythema elevatum diutinum*. The patient, a woman, aged 31 years, first developed some raised erythematous lesions on the knuckles eight months ago. These patches spread to the dorsa of the hands, in a somewhat linear distribution, and to a small extent to the forearms. The lesions were now present on the knuckles and backs of both hands; they were red and raised, and in places tended to have an annular appearance. A few scattered papules were present on the forearms. There was very little irritation. An alternative diagnosis of Granuloma annulare had been suggested, but the linear distribution of so many of the lesions did not quite seem to conform with such a diagnosis.

Pathologist's report.—A section excised from the back of the hand showed a thickening of the stratum corneum with the stratum granulosum well marked and increased. The stratum mucosum was thickened and prolongations were present in places. In the dermis there were a number of small cellular masses which were composed of lymphocytes, plasma cells, and a few mast cells. The blood-vessels in this region were distinctly dilated and surrounded with cells.

Postscript.—Treatment for six weeks had modified the appearance of the lesions to some extent, inasmuch as the colour was not so bright, but some of them were still quite raised and "lumpy." There was very little burning or irritation now.

Meeting held on November 15th, 1917, Dr. J. H. Stowers, Vice-President of the Section, in the Chair.

Dr. George Pernet showed a case of *Lymphangioma tuberosum multiplex.* The patient was a married woman, aged 34 years, with a number of small nodules, embedded in the skin, scattered about the front of the upper part of the chest in the characteristic area. They began to appear twelve years ago on the front of the neck, and thence spread to the chest. There were also a few similar lesions about the upper abdominal region. The back was practically free. The lesions, which were typical, were pinkish, firm to the touch, and became pale on pressure. He had used the old designation, "Lymphangioma tuberosum multiplex,"* because the condition was first so described, and appeared to be best known by that name, although it was a misleading one. Another name, "Nævi cystepitheliomatosi disseminati," agreed best with the histology,† but it was unwieldy. Syringoma and syringocystoma would be better perhaps, the nævus origin being understood, as first suggested by Besnier in the name he gave, viz. "Cystic epithelial nævi."

As to treatment, a case of Radcliffe-Crocker's under his care he curetted under an anæsthetic,‡ and the result was good and permanent. At any rate, four years later the patient's doctor informed

* *Vide* Radcliffe-Crocker's article and coloured drawing in *Clin. Soc. Trans.*, xxxii, 1899, 154, Pl. viii.

† *Vide* Pernet, *Brit. Journ. Derm.*, xix, 1907, pp. 67 *et seq.*

‡ Pernet, *vide supra.*

him she had remained well. In the present case he proposed to try X-raying for the front of the neck before suggesting curetting.

The CHAIRMAN (Dr. Stowers) considered the application of CO_2 would be a less formidable method of treatment than curetting and likely to produce satisfactory results.

Dr. J. M. H. MACLEOD showed a case of *Granuloma annulare*. The patient, who was a woman, aged 42 years, in good general health, had suffered from the eruption for six months. The lesions varied from small nodules to typical rings of Granuloma annulare and were present on the backs of the hands, knees, ears, and buttocks. Certain of the smaller nodules had involuted, leaving a depressed cicatrix. The larger lesions were all annular, with a whitish flat border, which in certain of them was clearly made up of the coalescence of small nodules. The lesions were definitely painful in some instances and in others were associated with sensations of burning or pricking. In addition to the Granuloma annulare she had definite symptoms of rheumatism with stiffening and thickening of some of the joints of the fingers. His reason for exhibiting the case was on account of the intensity of the subjective symptoms, as in other cases which had been under his observation these had been comparatively slight.

Dr. GRAHAM LITTLE recalled one of his first cases, that of a man who had an extraordinarily itchy eruption, so irritating that it kept him awake at night. He also had rheumatic symptoms, and sweated very freely. In the diagnosis of Granuloma annulare he laid much more stress on the nodule than on the ring; he thought the nodule here was characteristic of Granuloma annulare. He had had cases in which there had been painful symptoms, in this acute stage, especially on the knuckles.

Major GRAY said the condition in the present patient was almost identical with that of a patient Dr. Bunch showed at the International Congress of Medicine in 1913. It was of about the same degree of acuteness. He considered that this type of case was intermediate between the ordinary chronic cases of Granuloma annulare and those very acute cases of which he showed an example before this Section,* also at the International Congress, and labelled it "chronic persistent erythema." The lesions in that case came out very much as they did in this case, but were much more numerous, came out more quickly, and there was a tendency to very marked vesicle and bullous formation. He thought all these cases belonged to the same group, but were different types. He also thought that the cases which Crocker described as Erythema elevatum diutinum belonged to the same group. The latter group was said to be associated with rheumatism or was found in people with a rheumatic family history. One case

* *Proc. Roy. Soc. Med.*, 1913, vi (Sect. Derm.), p. 133.

he saw in a young girl had numerous rheumatic nodules about the elbow, and cleared up under salicylate of soda.

Dr. W. Knowsley Sibley said the association of rheumatic conditions in cases of Granuloma annulare was what one would expect. Was not the presence of subjective symptoms in this patient due to rheumatism? He took it that the enlargement of her finger joints was a rheumatoid condition, and it might suggest that her rheumatic symptoms were of the same nature as those seen associated with old chronic rheumatic joints, with raised erythematous patches over them, such as on the elbow. It was possible this skin condition might often be rheumatic in origin.

Dr. W. Knowsley Sibley showed a case of *bromide eruption*. The patient was a single man, aged 19 years, a flour-miller by occupation. There was nothing of note in his family history. Last February, he said, a sore place commenced on the outer side of his right thigh, and afterwards on the dorsum of the right hand, and these rapidly extended. In March a similar condition appeared on the left calf, followed by a lesion on the dorsum of the left hand, and extensive ulceration of the lower leg. He was sent to the hospital six weeks ago, by a doctor who did not know what the condition was, and he then presented a large fungating granulating sore measuring some 8 in. by 4 in. on the right thigh and a smaller one on the dorsum of the right hand. The lesions on the left side had healed. He had also a good deal of rather acute recent pustular acne on his face. On going into his history he ascertained that he was an epileptic, and had been taking bromide of potassium for five years (15 gr. twice a day), unknown to his doctor, from a prescription he had obtained from a former doctor. It struck him at once that it was a bromide eruption. The medicine was stopped, and now, six weeks later, there was practically complete healing of all the lesions. He had given him 10 gr. of borax three times a day, and he had had no more fits since. The Wassermann and von Pirquet reactions were both definitely negative, and there was no fungus in the exudation. At first the condition looked like blastomycosis, but further examination from that point of view was negative. He was about the middle member of a family of seven healthy persons, and the only member of his family known to be epileptic. Numerous red and circular pigmented scars were present on both thighs from old healed lesions. Although much more extensive, the active lesions when first seen were not unlike some of the photographs of this condition published in Stelwagon's *Diseases of the Skin* (7th ed., 1914, p. 460).

Dr. Graham Little said there was too much ulceration there (and the history described an even greater degree in the past) for it to be explained as due to bromide ingestion, in which ulceration was absent. He would regard this as probably syphilitic.

Note by Dr. Sibley (January, 1918).—A further Wassermann reaction was distinctly negative, and the whole condition had completely healed without specific treatment.

Dr. W. Knowsley Sibley showed a case of *Keratosis follicularis* (*Darier's disease*). The patient, E. B—, was a domestic servant, aged 33 years, unmarried. Her case was published by Dr. MacLeod in August, 1909, and she had now had the disease for twenty-one years, it having first appeared on the extensor surface of the forearms, then about her forehead, afterwards on the abdomen and legs.

There was nothing to note in her family history; her parents were both living; her father was crippled with rheumatic gout, her mother was stated to have had measles when the patient was born; her three brothers and five sisters were living and well. The patient was in an asylum with complete loss of memory for nine months a few years ago, during which time the disease became obviously worse. Her general health had been indifferent for some time, and she had been unable to follow her occupation for the past six months. She stated that she never perspired much. The greater part of the skin area was now covered with dirty coloured, rather greasy, yellowish-brown, variously sized papules, which were most prominent on the abdomen, but few were present in the groins. The palms of the hands and soles of the feet had always remained more or less free from lesions, and the nails were but slightly affected, though most of the finger nails had been shed at times, and those of both great toes were much thickened. The scalp was covered with a greasy seborrhœic secretion, and the patient stated that six months ago she had become quite bald over the whole of the vertex of the scalp, but the hair had since grown again. On the anterior surfaces of the legs, and of the thighs the lesions had coalesced and produced some extensive superficial excoriation with enlargement of the glands in the groins. There had never been any lesions in the mouth, but at one time the vulval mucous membrane had been affected. The urine gave

a specific gravity of 1014, acid, no sugar, but a marked trace of albumen was present, together with a few fine granular casts.

A good deal of controversy had taken place among various observers in connection with this rare form of skin disease, which was first described by Morrow* and called by him "Keratosis follicularis"—a most fortunate name, since it correctly expressed the pathological condition present in all cases reported to date.

In the case under observation the conclusions had been based on the examination of a large number of sections taken from the different areas in which the disease had been prominent. A section was taken from a single, elevated lesion on the left side of the trunk, fixed in alcohol and cut in paraffin. On microscopical examination the hair follicle was found to be filled with a horny plug, and presented a marked hyperkeratosis of the stratum corneum; a large number of horny cells were present. Deeper down in the funnel-shaped opening of the follicle itself numbers of Darier's so-called psorosperms were found to be present, these now definitely accepted as being epithelial cells undergoing degeneration. In the neighbouring hair follicles the same hyperkeratotic condition was found to be present exhibiting many degenerated epithelial cells. In the diseased area the stratum granulosum appeared to be well defined, but not thickened in any way; the stratum mucosum showed a decided increase and an attempt at partial destruction in places; the cells of this layer were apparently undergoing hyaline degeneration, hardly any sebaceous glands were visible; in the traces which could be found the glands appeared to be much overgrown with epithelial cells; the sweat ducts appeared to be normal. The changes in the cutis were very slight, and consisted of small-cell infiltration immediately below the lesion; the papillary blood-vessels were dilated and surrounded with small round cells; the deeper vessels were also dilated; there was also a small amount of pigment present in the papillary layer.

A section of a well-matured lesion occurring in the hair follicle was excised from the median line just above the mammary gland and confirmed Morrow's own views of the disease, that it was necessarily a true Keratosis follicularis involving the whole of the apparatus of the sebaceous gland. The chief changes in the section were seen to reside in the hair follicle itself, and consisted of a distinct

* Morrow, *Journ. Cut. and Ven. Dis.*, 1886. iv. p. 257.

hyperkeratosis which contained epithelial cells in various stages of degeneration. The Stratum granulosum was well defined though not increased in any way. The Stratum mucosum, especially at the side of the hair follicle, showed a marked thickening, but at the base of the funnel-shaped opening the layer appeared to be much thinner, and was made up chiefly of degenerated epithelial cells; the hyaline degeneration at this stage of the disease did not appear to be so well marked. The duct leading from the sebaceous gland was distinctly dilated and overgrown with epithelial cells, which was probably a secondary affection, the outer layers of the epithelial cells of the sebaceous glands were flattened against the basement membrane; the more internal layers were also flattened, and showed no signs of undergoing fatty transformation. The principal secondary changes apparently occurred in the sebaceous gland itself, and were fully recognised by the contents of the follicle and its situation or limitation to the upper part of the corium; the hair follicle extended much deeper than the lesion.

If the lesion especially affected the hair follicle it would have extended to the subcutaneous tissue, and the contents would not have consisted of so many degenerated epithelial cells. The appearances in these sections, as in Morrow's case, resembled those found in comedones, except that there were not so many epithelial cells in the sebaceous plug as were present in that disease—that was to say, the lesion under consideration showed a marked hyperkeratosis combined with obstruction and dilatation of the whole of the sebaceous apparatus, the duct leading from the gland being considerably enlarged.

In conclusion, the pathology of this interesting disease was undoubtedly a keratotic follicular condition with a secondary affection, which occurred in the whole of the sebaceous apparatus, hence the term first applied by Morrow "Keratosis follicularis," which was well defined both in his sections and in those accompanying this case. Further, great credit was due to Morrow for the very able illustrations and description he had given in connection with the histology of this disease.

The disease which Darier described in his paper as "Psorospermose folliculaire végétante" was unfortunately named, and his psorosperm theory had been entirely abandoned by histologists who regarded

these so-called parasites as only epithelial cells undergoing degeneration.

After all the pioneer in the elucidation of this very rare disease was Morrow, who first described it in 1886. The next in the field of research was Prof. White,* of Harvard University, whose paper, accompanied by an account of an histological examination by Bowen, was published in June, 1889, followed immediately afterwards by the famous memoirs of Darier † and Thibault‡: this was exactly three years after Morrow first described the disease. British dermatologists had also made valuable contributions to the research work in connection with this disease, principal among which is the joint paper of Ormerod and MacLeod.§

Dr. H. G. Adamson showed a case of *bullous urticaria in a baby* This patient was aged 17 months, and since the age of 3 months she had had very severe nettle-rash, involving the whole body. It was not of the type of urticaria they usually saw in children—namely, Lichen urticatus—or more rarely, Urticaria pigmentosa, and he did not remember having before seen this condition of generalised wheal formation in a baby. For more than a year there had been continuous eruptions of huge wheals over the chest and shoulders and head and neck especially, but also on other parts of the body and limbs. The wheals were accompanied by intense itching, so that whenever uncovered the baby tore at the skin with its finger-nails. During the last six months the wheals had been frequently the site of large clear bullæ, which came up in a few minutes and afterwards dried into a crust. There were at present many crusts on the scalp and some clear bullæ on the forehead and neck. In spite of the almost continuous eruption the general health and nutrition had remained good. It was difficult to know what was the cause of this urticaria. If it were due simply to digestive disturbance one would expect to see such a condition quite frequently in babies, but the only other similar case he knew was that pictured in the second edition of Dr. Sequeira's *Diseases of the Skin* (p. 367). It was thought that it might be due possibly to milk idiosyncrasy, and for six weeks

* J. C. White, *ibid.*, 1889, vii, p. 201; and 1890, viii, p. 13.

† Darier, *Ann. de Derm. et de Syph.*, 1889, 2 sér., x, pp 597–612.

‡ Thibault, *Thèse de Paris*, 1889.

§ Ormerod and MacLeod, *Brit. Journ. Derm.*, 1904, xvi, pp. 320–334.

the child was put upon a diet which excluded all milk, but with no other result than that it lost flesh. The baby was weaned at the age of 8 months and the change of diet made no difference. No drug treatment has been of any avail.

[Since this case was exhibited the child had been in hospital for ten days, and although the diet had been a normal diet for a child of that age, the eruption of wheals and bullæ continued.]

Dr. H. G. Adamson showed a case of *Pityriasis rosea with unusual features*. In this case there was the usual history of a "herald patch," and, ten days later, the eruption of macules on the body, covering the trunk in the "vest area." It was at this time that he first saw the patient, and the body was then covered with the typical oval erythematous patches, which were beginning to scale from the centre outwards. This distinguished it from ringworm, syphilis, and psoriasis, and, together with the absence of papular elements from Seborrhœa corporis. The case was unusual only in that the eruption extended on to the neck and face, the same characteristic macules with central scaling being scattered over these regions. The patient was seen a few days later, and it was noticed that the eruption had become very profuse on the face and neck and also on the trunk. Many areas on the trunk had become crusted, and similar crusts were forming here and there on the face. On the next day the face became swelled, and covered with numerous crusts as it now was, so that it recalled the appearance of an acute dermatitis due to primula or some other irritant.

The particular points to which he wished to call attention were the profuse eruption on the trunk, and the redness, swelling, and crusting of the face. That this crusting was neither the result of any local irritant, nor of Impetigo contagiosa superadded, he was convinced, for he had watched its rapid evolution from the macules. It was not very unusual for Pityriasis rosea to extend to the face and neck, and he had mentioned this fact and published a photograph of such a case in Allbutt and Rolleston's *System of Medicine*. It was known, too, that it might sometimes extend down the arms and legs, and Dr. Graham Little had shown a case of this sort in which there were vesicles on the extremities. He thought the prognosis was good in in this case, and he did not propose to treat the crusted condition

of the face, because he thought it was not due to impetiginous infection and that it would subside spontaneously. It was analogous to the bullous formation with crusting which one sometimes got in Erythema multiforme or in Lichen planus, and pointed merely to severity of the inflammation.

[The case was seen four days after it was exhibited. The swelling of the face had entirely subsided and the cysts were drying and crumbling off, leaving a dry skin surface without anywhere exudation or pus formation. After three days more all the crusts had dried and fallen and the face had resumed its normal appearance. Had the crusting been of a superadded impetiginous nature, this would have hardly occurred without local treatment.]

Dr. E. G. Graham Little showed a case of *impetigo of Bockhart of unusual extent and severity.* The patient was a young Polish Jew, aged 28 years, a milliner by occupation. The disease began to appear four years ago, with a pustular folliculitis of the same type as that now present. It gradually spread so as to cover nearly the whole body, with the exception of the face, the hands and the parts on which coarse hair was found, such as the scalp, axillæ, and pubic region, which had never been affected. There was fine scarring on those parts where the disease had receded. There was active folliculitis at present on the abdomen, chest, back of the trunk, thighs and legs. The beginning was always the same, a pustule centring round the hair, and large sheets of the surface were thus affected, the lanugo and not the bristle hair being selected by the disease. The man had been called up for military service, and was in other respects a well-developed robust person in good health. But he had advised the medical officer sending him for an opinion that he would probably become infective to others and would not be likely to remain long out of hospital if he were subjected to the conditions of service.

Dr. E. G. Graham Little showed a case of *fibrosarcomata, grouped in a peculiar manner, on the chest.* The patient was a man, aged 45 years. For the past fifteen years he had had a curious efflorescence of nodules on an area covering about 3 by 4 in. of the chest just below the right clavicle. On this area there were now numerous scars where earlier nodules had apparently been present, and here there

were also active new nodules of a dark red colour and firm consistence, of the size of half an almond, with a certain resemblance to a lupus nodule, for which they had been mistaken. The whole patch of affected skin suggested an infection of the sites of a Herpes zoster, but this was not confirmed by the history, which did not describe any initial injury. The Wassermann reaction was negative, and there was no history of syphilis, though the appearances were not unlike an old tertiary patch. A recent nodule was exised and submitted for examination by Dr. Kettle, pathologist to St. Mary's Hospital. His report was that the nodule was a fibroma or fibrosarcoma, the latter being the more probable diagnosis, as the cells were young and active, and the appearance that of new growth rather than inflammatory.

Dr. Adamson had made an interesting suggestion that the appearances of the affected patch recalled Bowen's disease, pre-cancerous dermatosis. That observer cited a series of six cases, which had almost uniformly been mistaken for tertiary syphilis, but the histological sections had demonstrated their epitheliomatous character. Clinically the case was surprisingly like the pictures given in Bowen's article, but the histological aspect was entirely different. He hoped to show the sections at a later meeting.

Meeting held on December 20th, 1917, Dr. James Galloway, President of the Section, in the Chair.

Dr. E. G. Graham Little showed a case of *multiple rodent ulcers with X-ray burns*. The patient was a gentleman, aged 63 years, whose occupation was indoors and sedentary. Some time prior to 1910 he noted on the left side of the forehead a small pimple or elevation with a subsequent similar lesion on the back of the trunk near the iliac crest, on the right side. He was seen in 1910 by Dr. MacLeod, who prescribed a zinc cream. He was again seen by the same observer in 1912, when the lesions had obviously developed into ulcerations of a rodent type, and freezing was adopted for the ulcer on the back and X-rays given twice to the ulcer on the forehead. X-raying was continued by a general practitioner in Southampton, who, up to April, 1917, gave numerous exposures to all the sites: twenty-five times to back, sixteen times

to forehead, seventeen times to nose. Fresh ulcerations developed on the back about 2 in. higher and to the left of the older lesion, and on the right ala nasi. During these treatments the practitioner was conscious of having produced a burn, and very frankly explained to the patient the nature of the accident. At the present time there was a large circinate area about 2 in. in diameter on the forehead upon which, amid scar tissue, there were two heaped up scabs covering a chronic ulceration ascribed to the burn, and there was a similar appearance on the site of the lower treated area on the back. The upper ulceration had practically healed over. The newest lesion, that on the ala nasi, dated only from two years ago, and was a typical small rodent ulcer with no X-ray burn at present.

The case was of interest for several reasons. In his own experience, and after a considerable search of the literature, the position on the back was one of the rarest situations for rodent ulcer. He had had one case of a large rodent ulcer of the back, and collected in a paper on the subject some three others. The question of treatment was also important. His own feeling was that no further radiation, whether by radium or X-rays, should be undertaken.

The PRESIDENT asked Dr. Little the criteria by which he judged this case to be one of "rodent ulcer" rather than of a para-keratotic and pre-epitheliomatous condition, such as is seen in persons of advancing years, and occasionally in the case of younger people. He recollected several individuals who were suffering from a "pre-epitheliomatous" type of degeneration in various parts of the body. He saw one such case who had been treated in various ways, and concluded, like Dr. Little, that such cases did not bear X-ray treatment well. That patient came to him with considerable X-ray ulceration and scarring, and the serious degenerative nature of such scarring resulting from the X-ray exposures, bulked more largely in his mind than the original degenerative condition from which he had suffered in the areas treated by X-rays. He avoided the use of rays, and treated him by medical cleanliness and mild antiseptic dressings for some months, and when he left his care all the lesions had healed. He had written to him since that he remained well. But X-ray treatment had been applied again to one or two areas presenting the original type of senile keratosis, and, apparently, successfully so far, previous experience having impressed the caution that the X-ray applications must be done with the very greatest care.

Dr. J. J. PRINGLE said that the occurrence of such multiple growths was comparatively common, but they had no evidence that the growths on the back of this patient were, microscopically, of the same nature as the lesions they usually called "rodent," which those on the face undoubtedly were. He believed radium to be much the best application for small rodent ulcers. His experience on the point was now fairly large; he had taken all his cases of rodent ulcer for

a number of years to the Radium Institute. His cases, however, had all been early ones, and he had not had any untoward results.

Dr. Lancashire (Manchester) said that his experience had coincided with the President's as to the danger of pushing X-rays to any degree in senile malignant degeneration of the skin. At present he was treating an old gentleman with nine or ten of these senile degenerative lesions about his face and neck, and they healed remarkably readily with a simple application of CO_2 snow and mild measures of that kind. There was no question about the definite action of radium in early cases of rodent, though he was not so sure about ultimate results. In severe rodent ulcer he thought they could do practically all with X-rays which they could accomplish with radium. The cases which in his clinic had not done well with X-rays and had been referred for radium treatment had given disappointing results.

Dr. Graham Little (in reply) said that, in diagnosing the condition as rodent ulcer he was influenced by two considerations. The first was that that diagnosis was made by Dr. MacLeod in 1910, before treatment had been applied; the second was the course of the disease. He classed epitheliomatous ulcerations as rodent ulcers if they showed the two criteria—namely: (1) slowness of growth and (2) absence of metastatis. That was a convenient clinical formula for separating this from other forms of malignant growth. It was justified in this case because the ulcerations were very chronic. Even in 1910 they must have reached a considerable stage of development to warrant treatment by X-rays. This condition was much more chronic than was pre-cancerous senile dermatosis as a rule. With regard to treatment by radium, a remarkable instance of rodent ulcer had been under his observation five years. It had been ionised, frozen, X-rayed, excised, and treated with radium—practically all the recognised processes had been tried. While treated with radium the ulceration developed very rapidly, exposing the whole chin bone. The patient was seen three years ago by Sir Alfred Pearce Gould, who suggested a very extensive operation, scraping the bone and cutting away a large part of the tissues of the face. But before that was done, caustic, in the form of arsenical paste, was applied, and to-day the man came to me cured! He was glad to have his view verified, that raying should not be continued in this case in any form.

Dr. E. G. Graham Little showed a case of *extensive dermatitis, possibly Mycosis fungoides*. The patient was an elderly man, in poor general health, who was sent to him by a practitioner, after he had seen Sir Malcolm Morris, who diagnosed Mycosis fungoides, and recommended X-raying. He persuaded the practitioner to delay the application of X-rays until the patient had come before this Section with a view to obtaining further opinions, as he was convinced that the condition was not Mycosis fungoides, but a severe form of seborrhœic eczema. The patient showed large areas of affected skin, and the eruption was intensely itchy, but there was no induration of any of the patches, there was no glandular

enlargement, and the earlier lesions were typically follicular. The history was that the eruption began, fifteen months ago, on the legs, which at present were the most extensively affected areas, and there was a very inflammatory eczematous eruption over the whole leg. On the thighs, and especially in the groins, there were large patches of dry seborrhœic type, and there were numerous areate follicular patches scattered over the trunk back and front, the forearms, and neck. The scalp and face were comparatively little affected.

Dr. Adamson did not think this was Mycosis fungoides, but a dermatitis arising by infection from the large patch of chronic dermatitis on the leg below the knee. He thought it was of the type which we called "seborrhœic dermatitis," and that it would clear up under treatment by baths and mild antiseptic ointments.

Dr. S. E. Dore said he saw the patient with Sir Malcolm Morris, and concurred in the diagnosis, chiefly because some of the lesions were so raised, and had a semi-elastic feel, such as was given by the lesions of Mycosis fungoides. He suggested that a biopsy would help.

The President strongly urged Dr. Graham Little to delay treatment of this by means of X-rays. If one allowed this man to go about five and a half days a week, and rest one and a half days only, he did not think there was much prospect of the lesions healing for a long time. He would say it was an infective dermatitis produced by organisms of no high degree of virulence. He strongly urged complete rest and getting the patient medically clean, and withholding X-ray treatment for the present.

Dr. E. G. Graham Little showed a case of *trophic ulceration of the foot after gunshot wound*. The patient, W. S—, a young man, aged 23 years, was wounded in September, 1916, in the right leg. He was admitted into the Orthopædic Hospital in January, 1917, and there operated on by Mr. Bankart, who had kindly furnished the following note :

"I operated upon W. S— at the Orthopædic Hospital on January 30th, 1917. The right sciatic nerve was found completely divided and its ends buried in a mass of scar tissue. The scar was excised. The ends of the nerve were resected and united by end-to-end suture. The union was surrounded by a flap of fat. He was last seen by me in July (just before he left the hospital) walking, as I thought, very well in a walking instrument. While in the Orthopædic, he had trophic ulceration of the toes, but nothing on the sole of the foot."

The man had no sensation on the right side or sole of the foot at the time of the earliest appearance of mischief on the sole, which dated from about three weeks ago, when he thought he must have scalded the foot with a hot-water bottle. There was at present a deep ulceration with a base of the area of an inch in the middle of the tread of the foot. He regarded the ulcer as of the same general type as the well-known tabetic perforating ulcer of the foot, but the prognosis was obviously better, as restoration of function was already beginning. The trophic ulcerations present in the earlier stages, as described by Mr. Bankart, had left some traces in a persistent onychia of some of the toes.

The following note from Dr. Wilfred Harris described the symptoms from the point of view of the neurologist:

"Foot-drop due to injury of sciatic nerve by gunshot wound. Voluntary power now returning well. Considerably more anæsthesia remaining than is usual with the degree of voluntary power present. Reaction of degeneration still very pronounced to electrical testing."

It was somewhat surprising that these ulcerations should be met with so infrequently, in view of the common occurrence of the nerve injuries such as this man had sustained. The sequence of events would remind members of the classic experiment of Head, who procured the division of his own ulnar nerve and then froze his hand. The resulting lesion persisted unhealed for many months as a chronic ulceration which he inspected, and of which this case reminded him.

The PRESIDENT said there could be little doubt as to the exact nature of the ulceration. The man apparently had injured his foot by walking and, owing to the nerve injury, he was not aware of the damage till the ulceration occurred and gave him a warning by eyesight, and not by the sensations produced. That was often so in the case of so-called trophic ulcers. He recollected a remarkable case* of a man who suffered from syringomyelia. Unknown to himself, he had trophic degeneration of the bed of his great toe-nail, and the lesion had become septic and suppurated. On his getting into bed one evening his toe-nail caught in the bed-clothes and the nail was ripped off, but he was not conscious of the fact until the next morning. As to the actual duration of time necessary for healing, if such patient was rested and the condition was well cared for, healing took place very quickly; in other cases there was so much vasomotor disturbance that healing was much slower. He regarded the prognosis here as good.

* *Brit. Journ. Derm.*, 1895, vii, p. 305.

Dr. S. E. Dore showed a case for *diagnosis*. This woman was aged 56 years. She stated that she had had these multiple tumours for only three months. He saw her last night for the first time. A biopsy was being made, which he would report later.* She had a large number of subcutaneous tumours, the skin over some of them being a little discoloured. They varied in size from that of a pea to a walnut, and were scattered about the scalp, chest, back, shoulders, arms, and the abdominal wall. A few were prominent, but the majority could only be detected on palpation. They were acutely painful and tender, and she said she could not lie on her back at night in consequence. He had made a provisional diagnosis of neurofibromatosis. He did not know what other condition of multiple tumours was likely to give rise to so much pain and tenderness with the possible exception of myomata.

The President said there was the hardness of the tumours and the alleged duration of the disease to be borne in mind—she said she had had the nodules only three months—while none of the curious defects, such as unusual pigmentation, the presence of soft fibrous tissue masses were present. If this was neurofibromatosis, it was an unusual example.

Dr. F. Parkes Weber thought the relatively short duration of the condition was against Dr. Dore's suggestion, and also the fact that there were no typical molluscous fibromata present.

Dr. S. E. Dore showed a case of *psoriasis*. This patient, aged 27 years, presented an extensive eruption of psoriasis, a little unusual in type, scattered over the trunk and limbs. He had had it four or five years. His finger-nails and toe-nails were affected. On several of the toe nails he had little black plugs embedded in the substance of the thickened nail-plate. One could not draw conclusions from a single case, but as it was such a typical and extensive example of the disease, he thought it would be useful to try intramuscular injections of sulphur, first advocated for psoriasis, he thought, by Jacquet. Louis Bory added eucalyptol, and Gougerot had also published a formula for the treatment of psoriasis by sulphur, and remarked that it could hardly fail to influence the "terrain" of the disease. He gave this patient Bory's formula: Precipitated sulphur 20 cg., eucalyptol 20 c.c., oil of sesame 80 c.c. After 5 c.c. he had a good deal of pain, but after 3 and 4 c.c. doses there was little inconvenience, although

* Sections showed the growths to be sarcoma, medium to large spheroidal cells being packed within areas of fibrous tissue.

he had complained of shivering after the injections. He had had seven injections altogether into the buttocks, and he had distinctly improved without other treatment, but on the whole the result had proved disappointing in comparison with the brilliant results claimed by Bory.

CURRENT LITERATURE.

HYPERKERATOSES.

KERATODERMIA PUNCTATA. Albert J. Chalmers. (*The Journal of Tropical Medicine and Hygiene.* No. 11, vol. xx. June 1st, 1917, p. 121.)

The patient was an Arab woman, aged 40 years, a female barber. The condition of the hands had been noticed for eight to nine months. The palms of both hands and the ventral aspects of the fingers presented a pitted appearance extending from the lower crease of the wrist to the terminal phlanges and extending on to the inner side and dorsal surface of each little finger. There was a slight callosity on the solar aspect of the right heel.

The pits were very numerous, rounded, and apparently sunk in the epidermis on the left palm, and on the flexor aspects of the fingers of both hands were also some thickened horny epidermic patches. The nails were normal. There was no hyperidrosis.

Examined under a low-power lens the horny layer seemed heaped up into a little circular ring at the orifice of a sweat-duct, and by increase in size and blending of several elements, larger irregularly shaped horny patches were formed. The horny patches presented a central crust or horny plug, which eventually dropped out and left a cavity with a horny margin. Later, the cavities filled up and left horny patches or ridges, on which the sweat-pores remained patent and able to discharge sweat.

There was no history of syphilis and no knowledge of arsenic having been taken or used, but the writer regarded the affection as analogous with the hyperkeratosis of the palm due to arsenic, and supposed that it may be due to some toxic agent, possibly of metabolic origin. He compares the case with similar cases recorded by Mantoux, Besnier, Hallopeau and Classie, De Beurmann and Gougerot, Balzer and Germain, and adopts Pringle and Adamson's nomenclature of Keratodermia punctata as best, defining the classification and clinical characters of this complaint. It is, he says, a keratodermia, and not an angio-keratodermia or an acantho-keratodermia, and it is best not to use the word porokeratosis which has been employed by Mibelli for another affection.

Histologically, there is found a keratosic mass blocking the mouth of a sweat-duct, together with a cell exudate in the papillary and sub-papillary layers of the corium.

The paper is well illustrated by photographs of the palms and photomicrographs of sections. H. G. A.

[In the *Ikonographia Dermatologica* (Neisser and Jacobi, 1906), there is a paper

by Buschke and Fischer, on "Keratodermia maculosa disseminata symmetrica palmaris et plantaris," with coloured plate, which relates a case and gives full references to literature.—H. G. A.]

AFFECTIONS OF THE HAIR.

TRICHOSTASIS NODOSA ATROPHICANS BARBÆ. Carlo Vignolo-Lutati. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, 1916, fasc. v, p. 272.)

Under the above name Vignolo-Lutati reports a case of a hitherto undescribed disease. The patient was a carpenter, aged 45 years. The condition had lasted about two years and showed a progressive symmetrical thinning of the hair of the beard over the free margin of the lower jaw. The alopecia was preceded by paroxysmal attacks of great itching. After shaving, the affected area remained red for some hours. As the condition developed, small projections, at first whitish and later reddish appeared, and when fully developed the hair ceased to grow on that area. The projections disappeared after a time, leaving a white, shining spot. The projections were situated at the mouths of the hair follicles and felt like small nodes in the skin. On scraping, a horny mass could be removed leaving a small crater, in which was the stump of a hair which could be easily extracted.

Pieces of skin were examined microscopically and showed a hyperæmia of the follicle; an atrophy or disappearance of the sebaceous gland, and infiltration around with small round mononucleated cells. The shaft of the hair did not emerge from the follicle on account of the great hyperkeratosis at its mouth.

The hair-root was curved in an arc and the hair twisted up inside the follicle. As the condition progressed the hair, sebaceous gland, and follicle atrophied and became surrounded by a formation of granulation tissue. The author considers the condition related to Keratosis pilaris. No organisms were found in the follicles and no cause for the condition could be discovered.

The paper gives an illustration of the clinical appearance and microscopic changes seen in the condition. R. C. L.

TROPICAL DISEASES.

ON THE TREATMENT OF YAWS BY SALVARSAN AND ALLIED REMEDIES. Raoul de Boissiere. (*Edin. Med. Journ.*, October, 1917. p. 226.)

In this paper are embodied the results of the writer's observations on the treatment of yaws in Fijians by salvarsan or one of its substitutes during a period of twelve months ending December 31st, 1916. The preparations used included novarsenobillon, arsenobillon, and kharsivan. All the cases treated, 107 males and 75 females, were Fijians, with the exception of one half-caste from Aquara Island. The ages of the patients ranged from 4 months to about 65 years, and all suffered from various undoubted manifestations of yaws. 30 from secondary yaws or "coko," and 152 from tertiary yaws. The cases of coko, with one exception, occurred among children under 7 years of age, and 8 of the 30 cases showed well-defined and extensive condylomata about the anal and scrotal regions

resembling exactly similar lesions seen in Europe in patients suffering from syphilis. The writer gives a list of the various manifestations of tertiary yaws in the cases treated, including gummatous ulceration, "soki" on the soles of the feet, pains of the bones and joints, dactylitis, and naso-pharyngeal ulceration, many of these occurring in association. Novarsenobillon was employed in 44 cases, arsenobillon in 49, and kharsivan in 89 cases. The drug was dissolved in 9 c.c. of warm, well-boiled rain-water and injected into the outer and upper aspect of the buttock, the dose administered depending on the age of the patient. The injections were extremely well borne by young and old and no complications, not even an abscess, occurred. The intramuscular injections of arsenobillon and kharsivan always caused considerable pain at the time, but by immediately commencing the application of hot cyllin foments, 1 to 400 or carbolic, 1 to 50, and renewing these frequently, the patients obtained considerable relief. Novarsenobillon was much less painful, and in many of the cases the hot foments were not required. The results obtained with arsenobenzol and kharsivan were most gratifying and similar to those recorded by other observers. The most striking results were observed in the children suffering from the secondary form or "coko," and extensive eruptions disappeared within a few days. The results obtained with novarsenobenzol were less satisfactory in the long run, though this was partly due to insufficient dosage, as, owing to the large number of applicants for treatment and the short supply of the drug, novarsenobenzol was used in the same doses as those recommended for arsenobenzol and kharsivan. The majority of patients only required a single injection to effect the complete disappearance of the lesion—180 out of 182 cases—but in a considerable number recurrence of the trouble was noted and a further dose was required. No local or other treatment was employed apart from the intramuscular injections. The writer concludes with the statement that if a sufficient supply of the drug were available yaws would soon be completely eradicated in Fiji, provided that each patient could obtain at least two or three injections. S. E. D.

NEW GROWTHS.

MOLLUSCUM CONTAGIOSUM. Vincenzo Diamare. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, 1917, fasc. iii, p 185.)

This article gives an account of microscopic investigations and inoculation experiments in Molluscum contagiosum. In addition to human Molluscum contagiosum, Diamare experimented with a case of "contagious epithelioma" in a bird. After mentioning the work of previous authors, especially with regard to the filter-passing powers of the virus in both man and birds, the author gives his own results. He ground up material from a case of human Molluscum contagiosum in a mortar and inoculated it with deep scarification into the eyelids and ears of rabbits and pigeons. In the latter, material was also inoculated into the nostrils and base of the beak. After two months in all cases the results remained negative.

A comparison of the human and avian molluscum bodies shows that in the lesions from birds the bodies consist of fatty substance, whereas in human mollusca the bodies consist of a gelatinous substance and chromatophil granules.

After discussing the nature of these granules of chromatophil substance, the author concludes that no authority now considers this substance as a parasite. It does not correspond either in localisation or reaction to keratohyalin. No authority considers it a product of nuclear metamorphosis. Its appearance in mass is synchronous with the appearance of keratoid material. It has not been proved, but it is not improbable, that it may be connected with the contents of the cytoplasm. The author considers that the pathological change in molluscum consists of an abnormal keratosis—a hypercytokeratosis—and, therefore, that it is a form of epithelioma. The author examined his specimens for organisms and found cocci and diplococci in the superficial layers of the human mollusca. These he considers as accidental saprophytes. On the other hand, he found an organism in the avian lesions. This organism could be stained with Giemsa's stain, and as he found this same organism in the blood-vessels of the tumour, he does not consider it a saprophyte. It is a diplobacillus. It was not found inside the cells. The author considers that this organism may be the cause of the lesions in birds, but examination of further cases would be necessary to confirm his observations. The article concludes with references to literature, and a large coloured plate showing sections of mollusca and the organism and granules, eferred to. R. C. L.

THERAPEUTICS.

DIATHERMY: FOR THE TREATMENT OF CERTAIN LOCAL ABNORMALITIES OF THE SKIN. Lullum Wood Bathurst. (*Lancet*, 1917, October 20th, p. 602.)

The author claims advantages for diathermy over the methods now generally employed for the treatment of moles and warts, corns, stellate veins, telangiectases, capillary naevi, port-wine marks, xanthelasma, acne, keloid, adenomata, freckles, etc.

These advantages are: (*a*) The rapidity with which the treatment can be carried out. (*b*) The absence of inflammatory reaction. (*c*) The accuracy and limitation which can be secured to definite areas, whether large or small and however irregular. (*d*) The depth to which destruction of tissue is to be carried out can be gauged and regulated. (*e*) Scarring is much reduced in area and less noticeable. (*f*) The treatment is comparatively painless, even children frequently tolerate it without a murmur.

The apparatus consists of one of the various patterns of diathermy apparatus and a high-frequency couch with handles. The patient is placed on the couch with his hands grasping the handles, and the electrodes from the diathermy apparatus are fastened to the metallic plate at the back of the couch and to the handles respectively. The current is then turned on to give a reading of from 0·25 ampères to 0·50 ampères. By this means the patient becomes part of a charged condenser, of which the cushion of the couch is the dielectric, and he and the metallic plate at the back of the couch are the two conducting surfaces.

If a metallic instrument be then approximated to his skin a discharge of electric current takes place from the skin to the instrument in the form of a spark. An uninsulated silver probe answers the purpose very well, and it is convenient to have several probes with fine and blunt pointing.

The instrument is then brought at right angles to the skin, so that the point is almost in contact with the surface to be attacked, when fine sparking is observed to take place. This is allowed to occur for a variable time, measured by seconds, according to the depth and area to be treated, when a yellowish-white, depressed surface remains. Little or no surrounding inflammation occurs and no dressing is required. The destroyed area crumbles away in the course of a few days, leaving in the case of small moles no perceptible scar, and when larger areas have been treated a slightly depressed, whitish, soft scar. As an instance of the rapidity with which this treatment can be carried out, the writer removed seventeen moles on the face in less than ten minutes.

S. E. D.

THE TREATMENT OF STAPHYLOCOCCAL INFECTIONS BY STANNOXYL: FURUNCULOSIS AND ACNE (METHOD OF GRÉGOIRE AND FROUIN.) Capt. Arthur Compton, R.A.M.C. (*Lancet*, January 19th, 1918, p. 99.)

Frouin and Grégoire found that the chloride or oxide of tin, when added to ordinary bouillon culture-medium, strongly inhibits the growth, under anaerobic conditions, of staphylococci; while under aerobic conditions the growth of staphylococci is not hindered, but the virulence of the organism is diminished. This fact, and the observation made in the district of Beauce, that furunculosis is unknown among tin-workers of that region, induced the above-named observers to test *in vivo* the therapeutic value of tin in staphylococcal infections. They demonstrated that intravenous injection of the chloride or hydroxide of tin in the rabbit, twelve hours after intraperitoneal inoculation of virulent staphylococci, retarded death of the animal by several days. As a result of these experiments Grégoire and Frouin produced the preparation known as stannoxyl, a combination of metallic tin and its oxide, entirely free from lead, a drug which has given in France promising results in the treatment of acne, furunculosis, etc. The writer gives notes of five cases of furunculosis, one of pustular acne, and one of infective dermatitis treated by six or eight tablets of stannoxyl per day, the total number varying according to the nature of the case from 20 to 400 comprimes of the drug.

In his view stannoxyl appears to afford a sure and efficient method of general treatment for such staphylococcal infections as furunculosis and acne, his own results confirming those already obtained in France by Frouin and his co-workers.

S. E. D.

A NEW TREATMENT FOR STAPHYLOCOCCIC INFECTIONS. J. E. R. McDonagh, F.R.C.S. (*Med. Press and Circular*, December 5th, 1918, p. 461.)

The author found that colloidal copper injected intravenously in cases of boils often aggravated the condition. Intramuscular injections of the same substance gave better results, but were not a complete success. He then tried colloidal manganese intramuscularly and obtained startling results. Often one injection of 3 c.c. cleared up all the boils in three days. In some cases it is better to begin with 1·5 c.c., repeat the same dose the next day, and 3 c.c. three or four days later. With doses under 3 c.c. the patient is not inconvenienced; larger doses may

cause some reaction. During treatment it is only very occasionally that fresh boils appear, and if this happens they generally subside quickly without further injection. Of 100 cases of boils taken at random, 50 treated by the usual methods, including vaccines, and 50 with manganese alone, *i. e.* without even local treatment, the average stay in hospital of the former was fifty days, and of the latter seven days. Similar successful results were obtained in echthymatous impetigo and subacute folliculitis; in acute folliculitis and superficial impetigo manganese by itself was useless. In impetiginised eczema and folliculitis and in chronic seborrhœic eczema intramine followed by manganese was successful. In deep abscesses and acute inflammation of the subcutaneous tissue, and in two cases of posterior periurethral (gonococcal) abscesses the effects were equally good, and the author is now treating cases of gonorrhœa with promising results.

S. E. D.

PYROGENIC THERAPY, WITH REMARKS ON COLLOIDAL METALS. A. G. Auld, M.D., M.R.C.P. (*Brit. Med. Journ.*, February 16th, 1918, p. 195.)

The author has investigated the clinical effects of various colloidal metals, parenterally introduced, since 1915. The results of the first attempts with gold, platinum, silver, and copper introduced subcutaneously, were meagre and uncertain. Colloidal manganous hydroxide, employed intravenously, with a view to its catalytic action in relation to the oxidative processes in the peroxide-peroxidase system, gave encouraging results. The catalytic action of platinum was also made use of with the design of causing adsorption of toxin-antitoxin on the platinum particle introduced into the blood. Gold, silver, and copper colloids were also tried, the dosage varying from 2 to 10 c.cm., and favourable results were obtained, more particularly when the injection was succeeded by a rise of temperature.

A sample of platinum caused severe reaction which was not produced by other samples of the same drug, and a similar result was caused by a specimen of colloidal silver. Being informed by the manufacturers that this silver was protected in a special manner, the protective, which consisted of veal peptone,* 0·4 per cent., with 1 per cent. of glucose, was employed clinically and reproduced the effects of the colloidal silver itself, bulk for bulk. This discovery led the author to suspect all the colloidal metals supplied, as they all contain some albuminous substance as a protective.

Gelatin protective gave rise to headache and malaise but without the rise of temperature. Although doubt was thus thrown on the colloidal metals, it cannot be affirmed that they are clinically inactive, as they may certainly produce results which are not accompanied by high temperature reactions. It is, however, very desirable that they be issued in a pure and more standardised form. If the pyrogen which produced the reactions was not colloidal platinum, it matters little therapeutically, as all pyrogenic substances produce the same effects, whether killed bacteria, proteoses, neucleic acid, or protected colloidal metals.

S. E. D.

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* On making inquiry, we are informed that the protective supplied was not veal peptone, but that the process of digestion was carried further to the amino acids.—(S. E. D.)

THE TREATMENT OF PSORIASIS BY X-RAYS AND CHLORINE IONISATION. Charles E. de Silva. (*Brit. Med. Journ.*, January 5th, 1918, p. 9)

The writer believes that chlorine ionisation is more efficient than X-rays in the treatment of psoriasis. It is quick, and has the advantage that the treatment can be continued as long as it is necessary without any ill effects, whereas the application of the X-rays must necessarily be limited. The dose of X-rays should be just sufficient to stimulate but not to injure or destroy the skin. In the local treatment of psoriasis and other diseases, the electro-ionic method offers facilities which no other except X-ray treatment affords. It allows of the introduction into each cell of a whole series of ions and to obtain different actions to the desired degree and depth. No other method can compare with these two most valuable and powerful methods, properly applied, for efficiency, rapidity, perfection of results, and absence of pain, where local treatment is indicated in any morbid condition. Moreover, their application is clean, agreeable, convenient, and cheaper in the long run. S. E. D.

GENERAL.

NOTES ON ONE HUNDRED CASES OF CUTANEOUS MALINGERING. Rivalta Raffaele. (*Giorn. Ital. d. Mal. Ven e della Pelle*, 1916, fasc. vi, p. 415.)

During one year the author, a military surgeon, came across a hundred cases of soldiers interfering with their skin in some way or another.

The author thinks such cases are much more numerous than is generally supposed, as many cases are not recognised as such. These men produced the lesions in order to avoid being sent to the Front. Cases also occurred in soldiers already at the Front and especially on return from leave. Many of the men attributed the lesions to the effect of explosions of guns, falls, injuries from falling stones, damp, cold, etc., whilst on duty in the trenches or as sentries. By imitation, several men in one district or regiment produced the same form of lesion. The majority used some form of chemical irritant, a few applied heat or other form of injury. Most lesions occurred on the lower limbs, especially the feet, so as to avoid having to march. Others produced lesions on the face and ears.

The lesions varied from superficial abscesses to deep necrotic and œdematous sloughs. Boiling water was used in some cases to produce bullous eruptions. In other cases the men intentionally omitted to take precautions against frost-bite of the hands and feet, and these cases were particularly difficult to deal with. The juices of plants and various roots were also used to produce eczematoid eruptions by rubbing them into the skin. The author's object in writing this article is to draw attention to the fact that artefacts are probably not rare in armies, and therefore all medical officers should be on the look-out for them.

R. C. L.

SYPHILIS.

ACUTE YELLOW ATROPHY IN SYPHILIS. Prof. Stuart McDonald, M.D., F.R.C.P.Edin. (*Brit. Med. Journ.*, January 19th, 1918, p. 76.)

This communication is a preliminary note on five typical cases of acute yellow atrophy which the author had the unique experience of studying in the post-mortem room during a period of two months. In practically all the cases a full course of intravenous injections of salvarsan had been given, coupled with the usual intramuscular injections of mercury. In each case the diagnosis of syphilis was clear on clinical grounds, and was confirmed by the Wassermann test. The cases were not of undue severity, and showed no special symptom of importance till a sudden onset of jaundice was noticed, without at first any special disturbance, the disease suggesting nothing more than an ordinary catarrhal jaundice. At a varying period of from two to eight days, however, acute symptoms appeared with dramatic suddenness. They were ushered in by a period of wild excitement and increased icterus, with hæmatemesis. The patients rapidly passed into a condition of deep coma, and death occurred in the five cases at periods of one to four days from the onset of the acute symptoms. The urine was remarkably bile-stained, and in each case showed tyrosin; in some leucin was also demonstrated. In four of the cases diminution in the size of the liver was demonstrated during life.

The cases presented clinically the classical symptoms and signs of Icterus gravis of a degree of acuteness which is seldom seen. The morbid anatomy and histology were equally striking and equally characteristic, the appearances being practically identical and varying only in degree.

Bacteriological examination, in contrast to what has been hitherto found in similar cases, yielded some interesting results which may prove of prime importance in relation to the ætiology of the condition. Cultures from the heart, blood, and lung gave copious growths of organisms, apparently of the coli-typhoid group, with some definite cultural characteristic features and pathogenic properties, but these are still being investigated.

Although the five cases were all syphilitic subjects and had all been treated with salvarsan and mercury, it is remarkable that such a complication has not been observed before, and would seem to point to some other factor having been introduced. There is no evidence that salvarsan has materially altered, and the syphilitic toxin and mercury factors may be taken as constant. Since microbic infection of a special type was found in each case, there would appear to be a *primâ facie* case for regarding this infection as being the new factor which, acting on livers previously damaged by syphilis, and possibly arsenic plus mercury, has completed the damage to the liver cells, and allowed autolysis of the tissue to occur. It should be noted that neither clinically nor pathologically do the cases observed bear any close similarity to cases of spirochætal jaundice. S. E. D.

ANTENATAL SYPHILIS: SUGGESTED ACTION OF THE CHORIONIC FERMENTS. Amand J. Routh, M.D., F.R.C.P. (*Brit. Med. Journ.*, January 12th, 1918, p. 47: and *Lancet*, January 12th, 1918, p. 45.)

The author's conclusions are as follows:

(1) The "granules" are the result of the "spirillolysis" or breaking up of the *Spirochæta pallida*.

(2) The "granules" are infecting agents, being in fact spirochætes in the granule stage. They are able to develop into the mature spirochæte in a suitable environment, or may become biologically inactive and remain latent for short or long periods.

(3) Chorionic (syncytial) ferments are present at the point of interdigitation of the fœtal and maternal portions of the placenta. Their action is primarily trophoblastic to enable the delicate chorionic villi to penetrate the uterine mucosa and to open up maternal blood-vessels, so that the ovum may find for itself a resting place with nutritive blood spaces round it. As a result of the destructive action of the ferments upon the maternal tissues, so-called syncytiotoxins are formed, but appear to be at once neutralised by so-called syncytiolysins. If not thus neutralised, maternal and fœtal toxæmia may occur.

(4) The chorionic ferments (or their derivatives) are suggested as being capable of exercising their destructive properties upon the *Spirochæta pallida*, which may either be in the maternal intervillous, or fœtal intravillous tissues, both of which are in intimate relations with the syncytial cells of the villi whence the ferments arise.

(5) This destructive action of the chorionic ferments upon the spirochæte breaks it up into granules.

(6) It is further suggested that during pregnancy it is the continued action of the chorionic ferments upon the granules which may render them latent and biologically inactive, and perhaps in a few cases may destroy them.

(7) After the pregnancy, when the chorionic ferments cease to be present in the tissues of the mother and child, the granules, wherever they may be, may develop into mature spirochætes.

(8) The success or failure of the chorionic ferments to protect the mother and child from spirochætal infection would depend upon (*a*) the virulence of the infection, which tends to diminish, owing to the presence of more maternal antibodies, with each successive pregnancy: and (*b*) upon the source of the infection. Infection is probably most difficult to arrest in a "mixed transmission," or in a true maternal infection, where attempts at infection of the embryo would be constantly proceeding throughout the pregnancy. It is probably least severe, and most easily countered by the ferments, when the primary infection is paternal, for it may then be a single infection only, and probably not capable of repetition if the primary infection be arrested.

(9) The Wassermann reaction in mother and child appears to be negative if infection has been only by spirochætes in the granule stage, so long as the granules remain biologically inactive and the mature organisms are absent.

S. E. D.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

Acanthosis Nigricans following Decapsulation of the Kidneys. Fred. Wise. (*Journ. of Cut. Dis.*, 1918, vol. xxxvi, p. 35.)

Anthrax, Successful Treatment by Various Methods. D. G. Dudley. (*Journ. Amer. Med. Assoc.*, January 5th, 1918, vol. lxx, No. 1, p. 15.)

Black Tongue and Keratochromo Glossitis. Lebar. (*Ann. de Derm. et de Syph.*, July, 1917, vi, No. 10, p. 572.)

Dermatoses of the Scalp. Moses Scholtz. (*Med. Record*, January 5th, 1918, p. 15.)

Dysidrosiform Eruption from Contact with German Powder. G. Milian. (*Paris Médical*, October 13th, 1917, No. 41, p. 299.)

Erythema Consecutive to Injections of Chlorhydrate of Emetine. G. Railliet. (*Bull. et Mem. de la Soc. Méd. des Hôp.*, December 31st, 1917, Nos. 35, 36, 37, p. 1266.)

Erythema Multiforme, Associated with Cutaneous Pigmentation (Melanin), Five cases of. E. W. Abramowitz. (*Journ. of Cut. Dis.*, January, 1918, vol. xxxvi, p. 11.)

Erythemato-purpuric Disc of Large Dimensions, with tendency to Vesiculation and with Gangrene due to a Venomous Bite, no doubt of a Spider. Gougerot. (*Paris Médical*, December 15th, 1917, No. 50, p. 493.)

Frost-bite as a Predisposing Factor in Carcinoma of the Ear. R. L. Sutton. (*Journ. Amer. Med. Assoc.*, December 29th, 1917, vol. lxix, No. 26, p. 2171.)

Hydroa Æstivale and Vacciniforme, A Clinical and Experimental Research. A. Perutz. (*Arch. f. Derm. u. Syph.*, 1917, cxxiv, Heft 3, p. 531.)

Ichthyosis Cutanea Diffusa, A Clinical and Histological Note on a Case of. V. Valle. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, [January, 1918], 1917, lvii, p. 385.)

Infection by the Staphylococcus, A Special Form of. P. Nolf, J. Bossaert, and A. Collard. (*Archives Médicales Belges*, January, 1918, p. 1.)

Lichen Sclerosus. C. Kreibich. (*Arch. f. Derm. u. Syph.*, 1917, cxxiv, Heft 3, p. 589.)

Mycetoma Pedis Nostras, Discovery of a New Pathogenic Streptothrix, with Remarks on the System of Trichomycetes (Streptothrix, Actinomyces). Guido Miescher. (*Arch. f. Derm. u. Syph.*, July, 1917, cxxiv, No. 2, p. 297.)

Mycosis Fungoides, The Pathology of (numerous illustrations of Histo-pathology). J. Frank Fraser. (*Journ. of Cut. Dis.*, December, 1917, vol. xxxv, p. 793.)

Oriental Sore, A Case of. Cecil R. C. Lyster and W. H. McKinstry. (*Lancet*, February 23rd, 1918, p. 294.)

Pellagra in the United States, The Mortality from (diagram and map). W. F. Petersen. (*Journ. Amer. Med. Assoc.*, December 22nd, 1917, vol. lxix, No. 25, p. 2096.)

Pellagra in Chili. H. K. Tuttle. (*Journ. Amer. Med. Assoc.*, December 22nd, 1917, vol. lxix, No. 25, p. 2105.)

Pemphigus, Diffuse Acute. W. Dubreuilh and R. Douence. (*Ann. de Derm. et de Syph.*, July, 1917, vi, No. 10, p. 526.)

Psoriasis and Tuberculosis. Soulaine. (*Thesis de Bordeau*, 1917.)

Purpuric Eruption, Two Fresh Cases of Meningococcal Infection with Presence of the Meningococcus in the: Cultivation of the Meningococcus from the Serum of a Vesicle in one of the Cases, etc. A. Netter, M. Salanier, Mlle. Blanchier. (*Brit. Journ. of Child. Dis.*, October–December, 1917, vol. xiv, p. 564.)

Sclerema Neonatorum and Scleroderma. David Lieberthal. (*Journ. of Cut. Dis.*, January, 1918, vol. xxxvi, p. 29.)

Sycosis and Other Chronic Staphylococcal Infections of the Skin and their Prevention. H. G. Adamson. (*Brit. Med. Journ.*, January 5th, 1918, p. 8.)

Urticarias, The Classification of the. R. L. Sutton. (*Journ. of Cut. Dis.*, November, 1917, vol. xxxv. p. 749.)

Urticaria Pigmentosa, or Urticaria Pigmentosa beginning after Puberty, Late M. B. Hartzell. (*Journ. of Cut. Dis.*, November, 1917, p. 756.)

Verrucose Microbic Epidermatitis Simulating Lupus Verrucosus (illustrated). Gougerot. (*Paris Médical*, November 10th, 1917, No. 45, p. 399.)

NEW GROWTHS.

Epithelioma, Two Cases of the Bowen Type of. Howard Morrow. (*Brit. Journ. of Chil. Dis.*, January, 1918, vol. xxxvi. p. 1.)

HAIR, SWEAT-GLANDS, PIGMENT.

Addison's Disease and Exophthalmic Goitre. F. Ramond and A. François. (*Bull. et Mem. de la Soc. Méd. des Hôp.*, November 20th, 1917, Nos. 31–32, p. 1131.)

Congenital Hirsuties in a Child ("Simian Type"). F. Parkes Weber (*Brit. Journ. of Child. Dis.*, October–December, 1917, vol. xiv, p. 272.)

Hyperidrosis, Generalised, Vagotonic, Constitutional, A Case of. Laignel-Lavastine. (*Bull. et Mem. de la Soc. Méd. des Hôp.*, December 13th, 1917, Nos. 33-34, p. 1192.)

Hypertrichosis, The Problem of. E. L. McEwen. (*Journ. of Cut. Dis.*, December, 1917, vol. xxxv, p. 829.)

Melanotic Pigment of the Skin, On the. C. Kreibich. (*Arch. f. Derm. u. Syph.*, 1917, cxxiv. Heft 3, p. 584.)

Pigment Formation in the Skin, The Problem of. Bruno Bloch. (*Arch. f. Derm. u. Syph.*, July, 1917, Bd. cxxiv. Heft 2, p. 129.)

Vitiligo, On the Pathogenesis of. Bruno Bloch. (*Arch. f. Derm. u. Syph.*, July, 1917, cxxiv, No. 2, p. 209.)

PATHOLOGY.

Erythema Provoked for the Diagnosis of Measles before the Eruption (coloured plates). Henri Godlewski. (*Bull. et Mem. de la Soc. Méd. des Hôp.*, November 20th, 1917, Nos. 31–32, p. 1151.)

Hypersensibility to Tuberculine in Erythema Nodosum. ARNOLD NETTER. (*Bull. et Mem. de la Soc. Méd. des Hôp.*, December 31st, 1917, Nos. 35, 36, 37, p. 280.)

Nerve-cells of the Skin. C. KREIBICH. (*Arch. f. Derm. u. Syph.*, 1917, cxxiv, Heft 3, p. 487.)

TREATMENT.

Baker's Yeast in Diseases of the Skin and of the Gastro-intestinal Tract, The Use of. HAWK, KNOWLES, REHFUSS, and CLARKE. (*Journ. Amer. Med. Assoc.*, October 13th, 1917, vol. lxix, No. 15, p. 1243.)

Ductless Glands and Dermatology. WILLIAM P. CUNNINGHAM. (*New York Med. Journ.*, January 19th, 1918, p. 97.)

Psoriasis, Intravenous Foreign Protein in the Treatment of. F. J. SCULLY (*Journ. Amer. Med. Assoc.*, November 17th, 1917, vol. lxix, No. 20, p. 1684.)

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Pyrogenic Therapy, with Remarks on Colloidal Metals. A. G. AULD. (*Brit. Med. Journ.*, February 16th, 1918, p. 195.)

Stannoxyl, The Treatment of Staphylococcal Infections by: Furunculosis and Acne (Method of Grégoire and Fronin). ARTHUR COMPTON. (*Lancet*, January 19th, 1918, p. 99.)

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Acne Vulgaris, The Roentgen-Ray Treatment of. H. H. HAZEN. (*Journ. Amer. Med. Assoc.*, September 22nd, 1917, vol. lxix, No. 12, p. 977.)

Birth-Mark with Radium, The Removal of a. WILLIAM R. BATHURST. *Urologic and Cutaneous Review*, January, 1918, p. 55.)

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Keloid by Radium, The Treatment of. ROBERT TAFT. (*Urologic and Cutaneous Review*, January, 1918, p. 31.)

Keloids by Radium, The Treatment of. FREDERICK C. HARRISON. (*Urologic and Cutaneous Review*, January, 1918, p. 19.)

Malignant Diseases of the Lips, Buccal Cavity, Tongue, Palate, Posterior Nares and Tonsils, Radium Treatment of. JOHN M. LEE. (*Urologic and Cutaneous Review*, January, 1918, p. 27.)

Psoriasis by X-Rays and Chlorine Ionisation, The Treatment of. CHARLES G. DE SILVA. (*Brit. Med. Journ.*, January 5th, No. 18, p. 9.)

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Cutaneous Auto-lesions in Soldiers (*continued*). E. Dacco. (*Giorn. Ital. d. Mal. Ven. e della Pelle* [January, 1918], 1917, lvii, p. 370.)

Cutaneous Medicine in its Relationship to Industrial Accident and Health Insurance. H. E. Alderson. (*Journ. Amer. Med. Assoc.*, February 12th, 1918, vol. lxx, No. 2, p. 71.)

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Antenatal Syphilis: Suggested Action of the Chorionic Ferments. AMAND J. ROUTH. (*Brit. Med. Journ.*, January 12th, 1918, p. 47.)

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Syphilis in School and Hospital, Teaching of. C. MORTON SMITH. (*Journ. of Cut. Dis.*, November, 1917, vol. xxxv, p. 726.)

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Syphilis as a Cause of Diabetes Melitus: Relation of Wassermann Test and of Lipoidemia. J. R. WILLIAMS. (*Journ. Amer. Med. Assoc.*, February 9th, 1918, vol. lxx, No. 6, p. 365.)

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Yamianine, Its Efficacy in the Cure of Syphilis. A. PASINI. (*Gion. Ital. de Mal. Ven. e della Pelle* [January, 1918], 1917, lvii, p. 404.)

Venereal Diseases as we see them To-day. J. E. R. MCDONAGH. (*Practitioner*, January, 1918, p. 41.)

Venereal Diseases: Their Relations to Insanity and Nervous Diseases. JOHN JOSEPH KINDRED. (*Med. Record*, February 2nd, 1918, p. 184.)

Wassermann Complement Fixation Test for Syphilis. J. Wheeler-Smith. (*New York Med. Journ.*, January 12th, 1918, p. 55.)

Zona Syphilitic as a Sign of Early Latent Meningitis in the Secondary. L. Boner. (*Paris Thesis*, 1917.)

REVIEWS.

The Influence of Sunlight in the Production of Cancer of the Skin.*

The author states in his preface that "this small book, demonstrating some common cancerous and pre-cancerous conditions of the skin, in which sunlight plays an important part in their production, is written with the object of bridging a gap in English text-books on dermatology, where those diseases are usually passed over in a cursory manner."

To the pre-cancerous affection known variously as Keratosis senilis, sailor's skin, farmer's skin, and tropical skin, Dr. Paul applies the apt and useful term of Dermatitis solaris chronica. The condition, he says, is one of great frequency in Australia, where the common occurrence of these cancerous and pre-cancerous diseases of the skin "is to be regarded as one of the penalties to be paid for inhabiting a country normally destined to be occupied by a coloured race." He gives as the chief characters of Dermatitis solaris chronica: (1) localisation to parts exposed to the sun; (2) erythroderma; (3) freckle-like spots or areas of brownish pigmentation; (4) telangiectases; (5) white sclerotic spots, left by the falling off of (6) keratoses, which may ultimately develop into (7) epitheliomata of the type of squamous-cell or prickle-cell carcinomata.

The book, indeed, usefully serves to recall attention towards an important and interesting condition which has been dealt with particularly and very fully by Dubreuilh,† of Bordeaux, and by his pupil Ferrer.‡ On the other hand, a large part of the book is taken up by a description, together with some fifteen in themselves excellent photographs of rodent ulcer and multiple rodent ulcer, but the writer does not make it quite clear as to whether he does or does not include this affection as a cancerous complaint due to the influence of sunlight. We presume that he does not, since he makes no statement that it ever arises upon a condition of Dermatitis solaris, and he quotes, seemingly with approval, the view that rodent ulcer is something different histologically and clinically from the squamous-cell carcinoma which is so often a sequel to Dermatitis solaris: that it is, in fact, a basal-cell epithelioma of nævoid origin. He does indeed express the opinion, in regard to multiple rodent ulcer, that, while "it appears to be of

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* *The Influence of Sunlight in the Production of Cancer of the Skin.* By C. Norman Paul, M.B. Pp. 57. 43 illustrations. 4to. H. K. Lewis & Co., Ltd. 10*s.* 6*d.* net.

† "Épithéliomatose d'origine solaire." By W. Dubreuilh. *Annales de Derm. et de Syph.* 1907. P. 387.

‡ "Étiologie clinique l'épithélioma cutané." By A. Ferrer. *Thèse Bordeaux.* 1906–1907.

nævoid origin, possibly strong sunlight may be an exciting factor in its production," but he gives no evidence in support of this idea, and we think it unfortunate that, on the strength of this opinion, the descriptions of rodent ulcer, multiple rodent ulcer, and of multiple benign cystic epithelioma should have been included under the title, "the influence of sunlight in the production of cancer of the skin," without some more explicit statement as to the author's views in regard to their position in this respect. But if the title of this little book seems not to cover quite exactly the subjects dealt with, yet the author is to be congratulated upon the production of a useful and suggestive piece of work, and the many life-like photographs form an excellent clinical record of some of the numerous cases upon which the essay is based. H. G. A.

The Principles and Practice of Dermatology.*

Dr. Pusey's book is one of the most readable of dermatological text-books, and the appearance of a third edition will be very welcome. The various problems are dealt with in a logical and common-sense manner which will appeal both to the novice and to the specialist, for the author does not hesitate to express his own views even when they conflict with those of other authorities.

A striking feature of the book is the large amount of space allotted to the general principles of dermatology. The importance of a thorough grasp of the anatomy, physiology, and pathology of the skin is realised, and care has been taken to incorporate all the most recent work on the subject. In the chapter allotted to treatment, Dr. Pusey has devoted some space to the subject of autoserum therapy. He claims that in his hands encouraging results have been obtained, especially in the chronic pruritic dermatoses, such as Dermatitis herpetiformis and chronic resistant eczema. In psoriasis he has found that cases treated by this method respond more readily to chrysarobin than untreated cases. The technique adopted by him is described.

The author has added a considerable amount of new matter necessitated by the progress of dermatology, and on two subjects, pellagra and syphilis, he has written exhaustive articles. The former, though now a comparatively common disease in America, is only rarely seen in this country, but the appearance recently of a few English cases will make the article of peculiar value to English readers.

The article on syphilis forms almost a complete text-book on the subject. The clinical side is very fully dealt with, as is the treatment of the disease. The author very frankly states his own views on the newer methods of treatment, and these deserve the careful consideration of all who have to treat syphilis. Dr. Stillians has contributed a very lucid chapter on the Wassermann reaction, and a full bibliography is added.

Another chapter which deserves special notice is that on epithelioma. It is doubtful whether most English readers will think that Dr. Pusey has helped matters by refusing to differentiate between "rodent ulcer" and squamous

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* *The Principles and Practice of Dermatology.* By W. Allen Pusey, M.D. Third edition. Pp. 1243. 45 plates and 466 illustrations in the text. New York and London: D. Appleton & Co. Price 30*s.* net.

epithelioma of the skin; that both are epitheliomata no one will question, but the clinical characters of the former are so well defined, and its treatment is so distinct, that it would seem advisable to lay stress on their differences. Further future research may show that these two types have a different origin, and much suggestive work has already been done in that direction. As to treatment, it will be found that most of the methods described are applicable only to the "rodent ulcer" type of case, although this is not clearly explained; this is mainly so with the caustic applications which the author describes in detail. This old method of treatment has been much revived of recent years, and merits extended application; it is therefore very useful to have such a complete account of the technique from one who is familiar with its use.

Scalp ringworm is presumably an uncommon disease in Chicago, as the author gives a very cursory description of it. His method of X-ray treatment of that condition is not one which would commend itself to operators of large experience in this country, and the Kienböck-Adamson method, now almost universally adopted here, is not referred to.

It is impossible to deal with all the additions made to the book; suffice to say that, as it is primarily written for the ordinary student and practitioner, the author has not overwhelmed it with irrelevant detail, but has confined himself to important facts, presenting them in an easily assimilable form. A word is needed to call attention to the excellence of the production. The book is printed on thin paper and in good-sized type. The illustrations are very numerous, and printed entirely on text paper; they are all black and white, and have been reproduced extremely well. A. M. H. G.

Venereal Diseases and their Prevention.*

Dr. Winkelried Williams has published a short series of lectures on venereal diseases and their prevention which he has been delivering to soldiers and others. The lectures are three in number, and deal respectively with: "The Physiology of Self-Control," "The Preventable Causes of Sexual Irritability," and "The Venereal Diseases." The little *brochure* will be of interest to those engaged in propaganda work. We are rather doubtful whether the list of pathological conditions summarised in the second lecture would appeal to the average lay audience, and we think that the dangers of the different venereal infections referred to in the third lecture might have been elaborated, especially the risks to the wife and family.

Cold in Dermatology.†

The author, after a historical survey, gives an account of the preparation, properties, and therapeutic application of liquid air and CO_2 snow in certain dermatological conditions. An interesting experiment is described in which the effect of the two remedies were tried on the same case. The case was one of

* *Venereal Diseases and their Prevention.* By A. Winkelried Williams, M.B., etc. London: H. K. Lewis & Co., Ltd. Price 6*d.* net.

† *El frío en dermatologia.*—Aire líquido—Nieve carbónica. By Dr. Joaquin Cervera. Buenos Aires: Compañia Sud-Americana de Billetes de Banco.

blastomycosis of the nose. Liquid air was applied to certain areas for 15 and 25 seconds, and CO_2 snow to other areas for 40 seconds. It was found that, although exactly similar scars resulted in both cases, the liquid air produced a much more violent reaction. The author believes that, owing to its more intense and rapid action, liquid air gives the best results in the more destructive and infiltrated lesions, such as tuberculous lupus, ulcerated and extensive epithelioma, the deep mycoses, and phagedenic ulceration. The difficulties of obtaining and keeping liquid air are, however, pointed out.

The author speaks very favourably of the results he has obtained with CO_2 snow, and quotes in detail thirty-four cases of different kinds treated by this method. These include: Lupus erythematosus, Tuberculosis verrucosus, papulo-necrotic tuberculide, blastomycosis, Neuro-dermatitis circumscripta, epithelioma, Verruca vulgaris and juvenilis, Keratosis senilis, nævi, and Granulosis rubra nasi. He has had satisfactory results in all cases except the port-wine nævus, in which his results are variable.

BOOKS RECEIVED.

The Influence of Sunlight on the Production of Cancer of the Skin. By C. Norman Paul, M.B. Pp. 57. 43 illustrations. London: H. K. Lewis & Co., Ltd. Price 10*s.* 6*d.* net.

Diseases of the Skin. By Milton B. Hartzell, A.M., M.D., LL.D. Pp. 753. 51 coloured plates and 242 illustrations in the text. Philadelphia and London: J. B Lippincott Co. Price 30*s.* net.

Genito-urinary Surgery and Venereal Diseases. By Edward Martin, A.M., M.D., F.A.C.S., Benjamin A. Thomas, A.M., M.D., F.A C.S., and Stirling W. Moorhead, M.D., F.A.C.S. Pp. 953. 21 coloured plates and 422 illustrations. Philadelphia and London: J. B. Lippincott Co. Price 30*s.* net.

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OF

DERMATOLOGY AND SYPHILIS.

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TREATMENT OF SOME SKIN DISEASES BASED ON THE THEORY OF OXIDATION AND REDUCTION.

By J. E. R. McDONAGH, F.R.C.S.

Introduction.

There is no branch of medicine in which diseases are so richly named and the causes more unknown, than the one which deals with cutaneous diseases. Bacteriological and pathological investigations have taught us little. We exhibit cases at meetings, and discussion runs rife as to whether, for instance, a widespread dermatitis should be labelled, Dermatitis exfoliativa, Pityriasis rubra, and hosts of other names which mean nothing, while a discussion as to the cause is practically never heard. Meeting follows meeting, and we never come nearer to the ætiology, or to a rational treatment of the majority of the cases exhibited. I feel sure the time must come when many of the skin diseases will be renamed, and there will be many, now considered to be distinct diseases, which will be found to have the same cause, only varying clinically according to the degree at which the ætiological factor is at work.

In my opinion, some of the skin diseases of unknown ætiology will be found to be due to chemico-physical causes. Some chemico-physical causes will produce a rash directly, others indirectly, by rendering the skin less resistant to organisms, which are normally only saprophytic upon it. For instance, arsenic will give rise to a

dry dermatitis directly, and to a purulent dermatitis indirectly, as it lowers the patient's resistance to the staphylococcus. There are other chemico-physical poisons, which render the blood too acid, a condition which may not directly cause a dermatitis, but one which may do so indirectly, by lowering the patient's resistance to the organisms, which cause seborrhœa and seborrhœic eczema. It was the study of arsenical dermatitis which led me to look upon skin diseases from another point of view. Arsenical dermatitis is not a distinctive dermatitis, for it may commence as an urticaria, an Erythema multiforme, a Dermatitis scarlatiniforme, and a cheiropompholyx. When fully developed it may be indistinguishable from a Dermatitis exfoliativa, a seborrhœic eczema, a Pityriasis rubra, etc. Arsenic when it produces a dermatitis does so in the following way. It uses up all the available peroxide, which results in lessening the amount of active oxygen formed. As a balance exists in the serum between active oxygen and active hydrogen, it will necessarily follow, that if the active oxygen is destroyed there will be an excess of active hydrogen. As it is essential for the blood to be on the alkaline side of neutrality, it will be seen, that this condition is not fulfilled if the hydrogen ion concentration is raised, or, in other words, if the blood becomes too acid. When arsenic makes the blood too acid, the endothelial cells and the walls of the peripheral blood-vessels become damaged, with the result that they dilate, and the other changes one associates with inflammation, ensue. If this is the correct interpretation, two inferences can be drawn: (1) that the dermatitis should vanish if the blood is made alkaline again; (2) that other skin diseases resembling arsenical dermatitis are due to some unknown agent, which makes the blood too acid.

If the other skin diseases referred to are caused by an increased acidity of the blood, they should likewise vanish if the blood is made more alkaline. As arsenic primarily destroys the peroxide, the main aim is to replace this, because active oxygen cannot be formed in its absence. The most powerful peroxide former is intramine, a sulphur compound. Intramine will quickly cure an arsenical dermatitis, and it will cause the temporary disappearance of those skin diseases which resemble this dermatitis. The reason why in the former case the disappearance is permanent, while in the latter only temporary, is due to the fact, that in the latter case the cause of the increased

acidity is not removed. This suggests, that the unknown cause is a poison due to some error of metabolism, probably of intestinal origin.

As the action of intramine is quick and not prolonged, its good effect can be maintained by the internal administration of sodium bicarbonate, as will be seen further on (Case 4). Arsenic will produce a stomatitis, a fact not generally known, and one which makes it resemble mercury. Intramine is also a specific for mercurial intoxication (1, 2). Sulphur will produce a dermatitis, and again one, which may commence as a cheiropompholyx, evidenced by the cases of mustard gas (di-phenyl-ethyl-sulphide) poisoning. Therefore, a widespread dermatitis may be due to the blood being too alkaline.

From what has already been said, one would expect that mercury, for instance, would benefit sulphur dermatitis, which it does, as demonstrated in a case reported later (Case 13). My research work has taught me, that metals in general act as oxidising agents and non-metals as reducing agents (3). Reduction is the process by which the peroxide is formed; therefore reduction is only subsidiary to and paves the way for oxidation, the action by which the protective substance in the serum gets rid of the bacterium or poison affecting its host.

In acute inflammatory conditions the oxidising action of the protective substance is at its best, but as the inflammation continues the oxidising action gets worn out, with the result that the reducing action comes to the fore. Therefore, in chronic inflammatory conditions, reducing chemotherapeutic agents should be first used, then oxidising chemotherapeutic agents, and *vice versâ* in the acute stages. Inflammatory conditions, then, can be benefited by the proper use of oxidising and reducing drugs. In some conditions certain oxidising agents are better than others, as will be seen below. Although both oxidation and reduction enter into every action executed by the protective substance, they are merely surface actions, regulated by a substratum in which specificity lies buried. Therefore, although we can benefit practically every inflammatory condition, we cannot cure all, since we do not always know the specific cause thereof. The riddle still left to solve is not what the ætiological factor does, a thing which I believe to be now clear, but what the ætiological factor in each instance is. The future, then, of skin diseases lies in discovering the chemico-physical substance, which causes this or that

dermatitis. As these are found, we shall be able to label a skin eruption definitely, and give it a name, which has a meaning, such as we are able to do in the case of the eruption caused by arsenic, namely, Dermatitis arsenicalis.

Oxidation and Reduction.

To make the processes of oxidation and reduction as they occur in the body clearer, I herewith append two diagrammatic formulæ:

Oxidation.

$R.Fe(OH)_2$	+	HO.OH	+	H.OH	=	$R.Fe(OH)_3$	+	H_2O	+	OH′
(Oxidising ferment or oxidase, a protein-ferrous hydroxide compound)	+	(**peroxide**)	+	(water)	=	(protein-ferric hydroxide)	+	(water)	+	(active oxygen)

Reduction.

R.S.S.R.	+	2H.OH	=	R.S.	+	R.S.H.	+	HO.OH	+	H·
(Reducing ferment or reductase, a protein-di-sulphide compound)	+	(water)	=	(sulphur-protein)	+	(mercaptan-protein)	+	(**peroxide**)	+	(active hydrogen)

The oxidase in the human body is iron. What is the explanation of the reason why the cells of the human body contain iron—there are plenty of other metals? Man is the highest vertebrate, vertebrates have evolved from invertebrates, and invertebrates from plants. The metal which acts as the oxidase in many invertebrates is copper, and in plants manganese. Just as at one period there was only one form of life, it is equally likely that at one period there was only one metal. If the elements have also undergone evolution, some metals not at present known must be in the process of formation. The course of evolution of life might have run parallel with the evolution of certain metals, in which case manganese was possibly the metal which prevailed when plant life came into existence, copper when invertebrates evolved, and iron when vertebrates appeared in the world. As life has evolved higher and higher, it appears to have become more vulnerable to parasites, both vegetable and animal. Invertebrates are less vulnerable, and plants are practically not influenced at all. Thinking the difference might be due in part to the different metals controlling the oxidising action, the chief action of the resisting substance, I set to work to see, first, what influence copper would have, and then manganese, in coccogenic infections in

man. As the protein, or what corresponds thereto, is simpler in invertebrates and plants than in vertebrates, I thought it would be wiser to use colloidal copper and colloidal manganese instead of complex organic compounds containing these metals.

My other reason for employing manganese is because it is one of the few metals which are capable of existing in the form of two easily reversible hydroxides, as shown in the following formulæ:

$R.Mm(OH)_2$	+	HO.OH	+	H.OH	=	$R.Mm(OH)_3$	+ H_2O	+ OH
(Di-valent manganese hydroxide (oxidase))	+	(peroxide)	+	(water)	=	(Tri-valent manganese hydroxide)	+ (water)	+ (active oxygen)

$R.Mm(OH)_3$	+	H	=	$R.Mm(OH)_2$	+ H_2O
(Tri-valent manganese hydroxide)	+	(active hydrogen)	=	(Di-valent manganese hydroxide (oxidase))	+ (water)

Parasites to save their active oxygen exhibit a strong reducing action (HO.OH + H) on their surface. The active oxygen (OH) formed by the oxidase of the protein particles, neutralises the active hydrogen (H) on the surface of the parasites, because their electric charges are opposite. The parasites, deprived of their active hydrogen, are unable to convert their tri-valent metallic hydroxide into the di-valent form, with the result, that the formation of active oxygen is prevented, because it is only the di-valent metallic hydroxide which acts catalytically as the oxidase.

Staphylococcic Infections.

The first part of my research was conducted on cases of boils, because it can be seen at once if a boil disappears or gets worse, or if fresh ones appear during the treatment. I began by injecting colloidal copper intravenously in doses of 1·5 c.c. The cases did not do well; in fact, the boils were often made worse, and the appearance of several new ones was caused.

If a drug like colloidal copper injected intravenously in such small doses can aggravate the complaint, it is likely that used in smaller doses still and intramuscularly, a contrary effect would be obtained.

Oxidising agents have the action of splitting up the protein colloidal particles into smaller ones, until some are sent into true solution, in which form they cease to be protective. As the protein colloidal particles in bacterial diseases are both smaller and fewer

in number than in protozoal diseases, and as bacterial infections do not make such a call upon the host to manufacture a protective substance, it stands to reason that the dosage of the oxidising agents used in such infections is an extremely important item, and it also explains how easily a slight overdose can have the opposite effect to that desired.

My next step, then, was to inject small doses intramuscularly. The difference was striking. In several cases, especially when only 1–2 c.c. were used, the boils rapidly cleared, but, as some went, others appeared; therefore on the whole, although colloidal copper proved to be a useful adjunct in the treatment of boils, it could not be judged a success.

I then injected colloidal manganese intramuscularly, and obtained most striking results. In a series of cases, I injected copper into one buttock and manganese into the other, because I had found in the treatment of syphilis, that three injections of three different oxidising agents were more efficacious than three injections of any one, but as manganese by itself proved such a success, I could not judge whether its combination with copper was an advantage or not. That is a matter for further consideration. Often one injection of colloidal manganese (3 c.c.) will clear up all the boils in three days, the improvement being even distinctly manifest twelve to twenty-four hours after the injection. If I think one injection will suffice, I employ 3 c.c. If I think more will be required, I commence with 1·5 c.c., repeat the same dose the next day, and 3 c.c. two or three days later. If a single dose of 3 c.c. will not produce the desired result, the same dose or 4 c.c. injected three or four days later will suffice. It is not wise to begin with a dose exceeding 3 c.c., as too big doses like colloidal copper intravenously may aggravate the condition.

With doses under 3 c.c. the patient is not inconvenienced. With doses of 3 c.c. and upwards the patient may have some reaction, pains in the head and body, site of injection, and fever. If the boil contains pus, it will come to a head, discharge of its own account, and rapidly heal. If the boil contains little or no pus, it will abort. The next day the red inflammatory zone becomes purple, a scaled ring marks the periphery, all pain and swelling vanishes, and twenty-four hours later the boil may be said to have healed.

Colloidal manganese differs from all other remedies in that, during treatment, it is only very occasionally fresh boils make their appearance. When they do, they generally quickly subside without a further injection.

Taking at random 100 cases of boils, 50 treated by the usual methods, including vaccines, and 50 treated by manganese alone, *i. e.* without even local treatment, the average stay in hospital of the former was fifty days, and of the latter seven days.

All these cases were bad; it was seldom that a patient had less than ten boils, and some had as many as seventy.

Apart from the saving of time, the saving of dressings is such a gain, and in large septic wounds, which should prove a favourable field for the employment of manganese, this is a very great consideration.

When I saw the effect manganese had on boils, I tried it on many other cases of coccogenic skin diseases, with the following results.

In superficial Impetigo contagiosa it was useless, but in deed impetigo, with ulceration, to which the name of echthymatous impetigo might well be given, the results were good.

Echthymatous impetigo is one of the commonest skin diseases in the Army; it is disfiguring, and necessitates a prolonged stay in hospital.

Omitting scabies, it could be truly said, that skin diseases in the Army would be practically non-existent if boils and impetigo could be done away with.

I have seen severe cases of echthymatous impetigo, which had resisted treatment for several weeks, heal up in ten days after one intramuscular injection of colloidal manganese and ung. hydrarg. ammon. applied locally.

In acute folliculitis, I have not seen manganese do any good. In subacute cases, *i. e.* in cases which were slowly improving under ordinary treatment, but kept going, owing to the appearance of fresh lesions, manganese is useful. In such cases I have seen one injection of colloidal manganese cause the disappearance of the tiny furuncles, and prevent others from reappearing.

In deep abscesses and acute inflammation of the subcutaneous connective tissue, colloidal manganese has produced really startling

results. A patient had a large abscess on one buttock, near the anus, which had neither burst nor pointed. The day after an intramuscular injection of colloidal manganese (3 c.c.) the pain and inflammation vanished, and in a few days' time, without any further treatment, it completely disappeared. Another patient had an indurative lymphangitis on the inner side of the right thigh. The lesion was 6 in. by 4 in., extremely painful, and red. Two days after an intramuscular injection of colloidal manganese, the pain, redness, and brawny induration disappeared, and it was possible to pick up the affected lymphatic. On the third day the manganese was repeated, and four days later the patient was up and about, all the lymphangitis having disappeared. I have had other cases in which a superficial lymphangitis following a whitlow disappeared within twenty-four hours.

From this it is clear, that the most superficial coccogenic lesions respond least, and the deepest most, to manganese, which is what one would expect, as the latter must cause a greater response on the part of the host than the former.

While experimenting with colloidal manganese, I found that the contents of a fresh bottle invariably gave the best results, and that exposure to air spoilt the emulsion owing to the oxidation which took place. I then prepared the emulsion in two separate portions, which are only to be mixed in equal proportions in the syringe immediately before use. This procedure at the same time allowed me to make the emulsion more concentrated. The concentrated colloidal manganese is supplied in two portions, one clear, the other of a brown colour. The concentrated form gives by far the best results, and 0·5 c.c. of the mixture is equivalent to 1·5 c.c. of the ordinary emulsion. Within twenty-four hours of an intramuscular injection of 1–2 c.c., practically all staphylococcic lesions in which there is little or no pus will have been rendered inactive. If pus is present, in the same space of time it will be brought to a head. If a tiny incision is now made to let out the matter, the lesion will in most cases have resolved within the next forty-eight hours, especially if a second injection has been given two days after the first.

The French writers have recently advocated the use of tin in staphylococcic infections. The oxide alone or with the chloride is given internally, but although this metal has undoubtedly a beneficial effect in many cases, and I have given stannoxyl a thorough trial,

the results cannot compare in my experience with those obtainable with manganese. From a chemical standpoint alone, such good results would not be expected to be obtained with tin as with manganese, because tin has not two reversible hydroxides, analogous to those of manganese, upon which the main success of the treatment depends.

In chronic cases of folliculitis, one of the most troublesome skin affections to cure, manganese by itself is useless.

Realising that in chronic affections the reducing action of the protein colloidal particles is often more to the fore than the oxidising, I treated a series of cases with intramine first and manganese afterwards, with some excellent results, as the following case will show :

Case 1.—The patient was admitted with impetiginised eczema and folliculitis, which he had had off and on for sixteen years. He joined the Army in July, 1916, and had been in France a few days when he was sent to hospital, where he remained for one month. Five days after being discharged he was sent back, and was in hospital for two months. Being considered incurable, he was sent to England, where he was treated for ten months. He was then sent back to France, and came into hospital with a weeping impetiginised eczema and folliculitis, affecting the scalp and face, two weeks later. The ears were especially bad, and the patient was unable to shave. The day after he was admitted, 2·5 c.c. of intramine were injected intramuscularly. The next day the skin was dry, and much of the acute inflammation had disappeared. Three days later, 3 c.c. of colloidal manganese were injected. The following day the patient was practically well. Seeing him again two days later, it would have been difficult to say that anything had been the matter with him.

Seborrhœic Eczema.

Another skin disease equally resistant to treatment is chronic seborrhœic eczema. In a series of cases treated, I found that manganese alone was useless, that intramine alone would produce a great improvement, and that a combination of both appeared in some cases to cure the condition. I will now cite a few interesting cases.

Case 2.—The patient was admitted for seborrhœic eczema, affecting the whole of the head, the chest, back, axillæ, and external genitals. The rash was weeping, crusted, and had attacked the hairs in the parts affected. The eruption had been present for two years, and, in spite of having been in five different hospitals, his skin had never cleared up. When I saw him it was as bad as it had ever been. I gave him an intramuscular injection of intramine (2·5 c.c.), which produced a great improvement. Four days later, I injected colloidal manganese (3 c.c.) into the other buttock. The next morning the patient was better than he

had been for two years. Three days later I repeated the manganese, and within ten days the patient was discharged, perfectly well. During the treatment no local applications were employed.

Case 3.—The patient was admitted for a subacute seborrhœic eczema, affecting the whole of the head, chest, back, axillæ, and external genitals. The patient also had vitiligo, which made its appearance a few months after the onset of the eruption. I gave him an intramuscular injection of intramine, which produced a great improvement up to the fifth day, and then the eruption stood more or less *in statu quo*. I then injected colloidal manganese, and the next morning the patient was better than he had been for two years.

One of the most interesting points in this case, is the associated condition of vitiligo. Vitiligo is not uncommon in syphilitic degenerative myelitis and encephalitis, in which the patient presents other manifestations of involvement of the sympathetic nerve system, suggesting that this anomaly of pigmentation is of sympathetic nerve origin. Vitiligo has become more frequent in soldiers, who have been combatants in this war, and who have never had syphilis. An examination of the cerebro-spinal fluid in most cases reveals a slight lymphocytosis; it is very seldom that the cell-count exceeds 17 per c.mm. Another skin disease which exhibits the same phenomenon, namely, Dermatitis herpetiformis, has also increased during this war. Therefore, vitiligo and Dermatitis herpetiformis are two skin diseases, probably associated with meningeal irritation of the sympathetic nerve fibres.

Still another skin disease, having the characteristics above mentioned, is Keratodermia blennorhagica (1, 8).

I have never found anything do vitiligo good, but three cases of Dermatitis herpetiformis I had under observation for some time, cleared up and did not recur to my knowledge under hexamethylenetetramine (urotropine). My reason for giving this drug was owing to current opinion, that it liberates formaldehyde in the cerebro-spinal fluid. The treatment of Keratodermia blenorrhagica will be found in my recent writings on gonorrhœa (1, 8).

Case 4.—Patient, a man, aged 20 years, was admitted for seborrhœic eczema. The patient stated that his head was always scurfy, and that he had the disease on and off since childhood. A brother also suffered from a similar complaint.

On admission the patient was covered from head to foot with a dry inflammatory and scaly eruption, which had begun on the scalp, as these cases often appear to do. After he had been in the hospital a few days the skin began to weep, so he was given an intramuscular injection of intramine (2·5 c.c). Two days later there was a striking improvement. On the third day 100 c.c. of

intramine were injected intravenously. The next day the improvement was still more marked, the skin being quite dry and nearly normal. Three days later another intravenous injection of intramine (100 c.c.) was given. On the third day after this injection the condition relapsed in the feet, and they became septic. Under local treatment the patient got quite well, but had a very severe relapse three weeks later. As local treatment did not do very much good in the period of a fortnight, I ordered the patient 150 gr. of sodium bicarbonate a day. On the third day the urine became alkaline, and from that day onwards the patient made a rapid recovery. The patient had the atrophy of the nails, which commences at the base and leads to shedding, as occurs in cases of arsenical dermatitis.

I report this case to show the ill-effect which can be produced by giving a third injection of a reducing agent (intramine) when an oxidising agent (manganese) should have been employed.

Case 5.—Patient had had a recurring seborrhœic dermatitis of the scalp, neck, and forearms for three years. I gave first of all a small intramuscular injection of intramine (1 c.c.), which produced considerable improvement. As the condition was tending to relapse twelve days later, I gave a small intravenous injection of intramine (30 c.c.). I repeated the last dose three days later, although in the meantime the rash had practically vanished. Five days after the last injection the patient was able to resume his duties. One month later the condition recurred. The recurrence was the mildest the patient had had, and readily responded to local treatment.

I venture to think that if two big doses of intramine had been prescribed, and manganese incorporated therewith, a relapse would not have occurred, at any rate, so soon. I also mention this case because it shows, what several others have done, namely, that the recurrence after treatment is milder and readily responds to local measures.

Case 6.—Patient had had a recurring seborrhœic dermatitis of the head, face, back, and chest for four years. The present attack had commenced three months before I saw him. Internally I prescribed alternate doses of a tonic, containing strychnine, iron, and arsenic in big doses, and colloidal iodine (℥iij., *ter in die*). An intravenous injection of intramine (100 c.c.) was given and repeated four days later. Four days later colloidal manganese (3 c.c.) was injected intramuscularly, and a week after this all treatment was suspended, the patient being perfectly well. The internal treatment was advised to be continued for a fortnight once a month for the next three months. Up to the present the skin condition has not relapsed, and the injections were given nine months ago.

My object in mentioning this case is because I believe the internal treatment was helpful. The tonic was prescribed with a view of assisting the general metabolism, while the colloidal iodine was given

with the same object as the sodium bicarbonate in Case 4, viz. to prevent a rise in the hydrogen ion concentration of the blood.

Chronic Eczema.

Under this head I include cases which perhaps would be better diagnosed as Lichen simplex chronicus, and cases which strongly suggest the premycotic stage of Mycosis fungoides. I will only cite a few illustrative cases, as the same remarks apply to these as have been fully illustrated in the last section. The most pronounced changes which result from treatment, are the rapid disappearance of pruritus and the rapid drying up of a weeping surface.

Case 7.—The patient was a man, aged 42 years, who had complained for the last fifteen years of recurring eczema, affecting all the extremities. The itching was intense, and after the rash had been out for a few weeks it developed a weeping surface. The cause of the eczema in this case was probably a combination of lead and alcohol poisoning, two chemical substances which make the blood too acid.

Treatment commenced with a tonic and colloidal iodine internally; then intramine was injected intravenously (100 c.c.), and repeated four days later, by which time the rash had become dry and the pruritis had ceased. Five days later an intravenous injection of galyl (40 cgr.) was given, and, finally, another intravenous injection of intramine (100 c.c.) after an interval of a week. Internally, colloidal iodine was taken intermittently for six months. It is now fourteen months since treatment was started, and there has been no recurrence.

Case 8.—The patient had the back of the right knee and lower part of the thigh affected, duration, nine months. Under local treatment, including X-rays, which was continued for four weeks, no improvement was obtained. The patient then had two intravenous injections of intramine (30 c.c.) with an interval of four days. A week later the condition had so far improved as to permit of his being discharged the hospital. From a raw, weeping condition the skin had been rendered dry and slightly scaly. Three weeks later the patient relapsed, but, contrary to previous behaviour, the eruption immediately cleared up under zinc ointment. The irritation of riding breeches probably caused the recrudescence.

Case 9.—Patient had had recurring eczema for seventeen years, which had only affected the feet. Although the eruption was often weeping, the chief complaint was the intense irritation accompanying it.

The patient had 2·5 c.c. intramine injected intramuscularly. The next day the itching had vanished, and a few days later the eruption had quite disappeared. The patient volunteered the statement that he had never got well so quickly before. A month later this case relapsed.

Cases of chronic eczema do not seem to do so well as cases of seborrhœic eczema, and they certainly relapse quicker.

Arsenical Dermatitis.

There is no skin eruption so amenable to treatment with intramine as arsenical dermatitis (1, 2, 5, 6). Not only will intramine cure arsenical dermatitis, it will prevent it, and if one or two injections of intramine were incorporated in every course of "606," I venture the opinion, that a case of arsenical dermatitis would never or very rarely be seen. Arsenical dermatitis has become more common since the war, because the substitution products for "606" are more toxic. This severe dermatitis, as I am not referring to the evanescent cases of urticaria, is more common after the second course of "606" than after the first. It usually appears within two weeks after the last intravenous injection, although its onset may be delayed long past this. I have seen it occur eighteen months after an intramuscular injection. It very seldom occurs before the fourth intravenous injection, unless the intervals between the injections are long, although I have seen a case, which would have ended fatally but for intramine, set in after the first suppository.

The cases which begin with urticaria or Erythema multiforme usually clear up of their own accord, but occasionally after the rash has disappeared the patient develops uræmia and dies, while other cases develop into generalised and severe dermatitis. A fatal case of severe dermatitis seldom shows marked pathological changes in the liver or kidneys, and death is usually due to a septic broncho-pneumonia. Fatal cases of yellow atrophy of the liver and uræmia, due to profound pathological changes in the liver and kidney respectively, are practically never accompanied by dermatitis. Sudden death after an injection and hæmorrhagic encephalitis, which shows itself clinically in the form of convulsions, coma, Status epilepticus, and death, and which practically always occur on the third day after the second injection, are due to a somewhat different cause, although arsenic is the offender. Sudden death and hæmorrhagic encephalitis can be prevented by the timely use of intramine intravenously. An urticaria can be seen to disappear while an injection of intramine is being given. A developing severe dermatitis can be aborted by intramine, as the following case shows.

Case 10.—Patient developed a universal dry, itching, and scaly dermatitis one week after the fifth intravenous injection of novarseno-benzene (Billon). I saw him three days later, when he presented the following features: A universal

dermatitis, which was beginning to get crusted and to weep, especially about the ears and on the face, which was œdematous. Many of the hair follicles on different parts of the body were developing pustules. I immediately injected 100 c.c. of colloidal iodine intravenously, 2·5 c.c. of intramine into each buttock, and the next day 100 c.c. of intramine intravenously. A week later the patient was walking about and the skin was perfectly healthy. If left alone, this patient would probably have died, as they generally do when sepsis sets in so early as the third day. Even if had recovered with his life he would have most probably been ill for months, and then left with complete alopecia, arsenical pigmentation, or both.

Case 11.—A woman suffering from cerebro-spinal syphilis had six injections of galyl, three being intraspinal, and then was given mercury internally for nine months. The last galyl injection produced an arsenical dermatitis, which in spite of treatment, peristed for nine months, when the cerebro-spinal symptoms reappeared. Within three days after an intravenous injection of colloidal iodine and an intramuscular injection of intramine, the dermatitis had practically vanished.

Case 12.—This patient had syphilis, for which he received seven injections of "606" and seven injections of mercury in May. In August of the same year he was circumcised under chloroform anæsthesia. A few days later, an eruption appeared on the hands, like cheiropompholyx, and quickly spread all over the body, when it assumed the appearance of an acute seborrhœic eczema. The eruption became very severe and typical of arsenical dermatitis. In September the patient had one intravenous injection of colloidal iodine (100 c.c.) and two intravenous injections of intramine (100 c.c.) at two days' interval between each. Within a few hours after the first injection the patient said his skin felt better, and particularly remarked upon the improvement after the intramine. Under local treatment, by the end of the month the eruption had completely disappeared, and the patient was able to leave hospital with his skin perfectly clear, with no loss of hair and no pigmentation.

This last case presents more than the usual interest, because the onset of the dermatitis was delayed, which is not infrequently the case; because it occurred after the patient had had chloroform, a drug, which like arsenic, when it acts as a toxic agent, increases the hydrogen ion concentration; and because the eruption began as a cheiropompholyx. Many severe toxic dermatoses begin with tiny vesicles on the hands, and one of the best known now is the delayed eruption which follows the mustard gas; therefore, it is certain that the so-called dysidrosis is not a disease of the sweat-glands at all, but a dermatitis caused by agents, which make the blood too acid or too alkaline.

Sulphur Dermatitis.

Arsenic makes the blood too acid, and mustard gas, which is diphenyl-ethyl-sulphide, makes it too alkaline. Therefore, as it is

again a case of metal and metalloid, I determined to try injecting a metal into a severe case of mustard-gas poisoning with the following result :

Case 13.—The patient developed, fourteen days after being gassed, an acute eruption of the hands, axillæ, and groins, which soon spread over the rest of his body. After being treated for two months in hospital he was discharged uncured, but distinctly improved. A fortnight later the rash reappeared with greater severity, when he came under my care. I treated the condition locally with cold-starch poultices, and injected intramuscularly 2 c.c. of a 5 per cent. emulsion of colloidal (collosol) mercury, with the result that in a week the rash had vanished.

I have just treated three cases of severe mustard-gas dermatitis with colloidal manganese, with most excellent results.

Rheumatic Cutaneous Eruptions.

Some of the most interesting cases I have had, have been cases of cutaneous eruptions, associated with muscular and articular rheumatism. I have notes of eleven such cases. In two the rash was almost indistinguishable from the generalised small type of Pityriasis rosea and the generalised closely-grouped fading maculo-papular syphilide, but on careful examination the correct diagnosis could be made, because some of the lesions in the neighbourhood of joints were distinctly purpuric. One of these two patients also had lesions on the fingers, which closely resembled angiokeratoma.

The third case was a typical case of purpura. The other eight cases had Erythema multiforme. Three of these eight cases had very marked rheumatic nodules.

In every one of these cases the rash, nodules, and rheumatic pains vanished under intramine. The improvement was so rapid and marked, that the patients frequently said they had not felt so well for years, because in nine of the cases the patient had had one or more attacks before.

The following case was one of the worst :

Case 14.—The patient was admitted with Erythema multiforme, rheumatic nodules scattered irregularly about the body, and bad articular and muscular rheumatism, which had persisted for nine months. The first attack began seven years previously.

August 3rd, 1917.—1 c.c. intramine intramuscularly.

August 6th, 1917.—Rash fainter; nodules smaller; pains better. 1 c.c. intramine intramuscularly.

August 11th, 1917.—Nodules very much smaller; rash disappeared; rheumatic pains quite gone. 30 c.c. intramine intravenously.

August 13th, 1917.—30 c.c. intramine intravenously.

August 17th, 1917.—Patient left hospital perfectly well.

In two of the cases a recurrence occurred, but the recurrence was not so severe as the attack, for which intramine was prescribed, and readily responded to ordinary treatment. When I had used intramine in a very large series of chronic skin diseases, and when experience had taught me more about oxidation and reduction, I came to see, since reduction only prepares the way for increased oxidation, that treatment with intramine, a reducing agent, should always be succeeded by the injection of an oxidising agent.

The next two cases show the truth of the above.

Case 15.—The patient had Erythema multiforme and rheumatism. Under two intramuscular injections of intramine the rash and pains disappeared, only to reappear five days later. After one intramuscular injection of colloidal manganese (3 c.c.) by the next day the rash and pains had vanished, and did not recur, so far as I know. This case might easily have been judged as a failure for intramine by those, who do not realise, that reduction is only preparatory for further oxidation, and that it is oxidation itself, that actually destroys the parasite or neutralises the poison.

The truth of this is further emphasised in the treatment of Lupus vulgaris. Intramine alone causes a temporary improvement, but alternated with or succeeded by colloidal manganese, or ferrivine, a disappearance of the lesion can be brought about (5).

Hydroa Æstivale.

I had three cases of Hydroa æstivale, which benefited with intramuscular injections of intramine. In all three cases there was a large amount of indican in the urine, which was considerably diminished after the injections. A fourth case I treated with intramine internally (2·5 gr. in keratinised capsules) with some success.

Acne Rosacea.

The following case of Acne rosacea is one of great interest:

Case 16.—The patient's whole face was covered with the worst eruption of Acne rosacea I have ever seen. The eruption had persisted in spite of treatment for several years. With the exception of some pustular lesions, which remained behind, the condition vanished under three intravenous injections of intramine.

(100 c.c.) given at two days' interval between each. Under two intramuscular injections of colloidal manganese, 3 and 4 c.c. respectively at three days' interval between them, the furuncles vanished. I have had equally striking effects in two other severe cases.

Chronic Ulcers.

Intramine applied locally to chronic ulcers and chronic coccogenic erosions and sinuses, which would not heal under any treatment, including X-rays, is invaluable. Perhaps one of the best cases to illustrate this is the following:

Case 17.—The patient entered hospital in April, 1917, for impetigo of the lower extremities On the right buttock he had a lesion, which burrowed deeply in several directions. All kinds of local treatment were used, including scraping and X-rays, till October. On October 27th I injected 2·5 c.c. intramine into the same buttock, and dressed the sinus three times a day with the drug. On October 31st the sinus had completely healed, and the induration which the lesion had left had practically disappeared. Under ordinary treatment the patient was in hospital six months, while intramine cured him in four days.

The following case is also worth reporting:

Case 18.—The patient contracted syphilis eight months before I saw him, during which time he remained in hospital, where he underwent two courses of salvarsan and mercury treatment—*i. e.* sixteen injections of the former and fourteen of the latter. The patient had an indurated ulcerative chancre of the glans penis, and under the above treatment, neither did the sore heal nor the induration disappear. As a result of treatment the Wassermann reaction became negative. Within four days after an injection of intramine (2·5 c.c. into each buttock), the sore completely healed, and all the induration vanished.

In chronic soft sores intramine applied locally is invaluable, and in Ulcus molle serpiginosum, applied locally and injected intramuscularly, intramine will cure a condition in a few days, which has lasted for several years (2, 7).

I have treated three cases of extensive Lichen planus with intramine. In one the rash vanished, but I could not say whether it was due to the intramine or not, since the other two cases were left untouched. This is the same indefinite result as is obtained with salvarsan. Unfortunately I have had no case of Lichen planus in which I have tried the combined treatment of intramine and colloidal manganese. Very uncertain results were also obtained in fifty-seven cases of psoriasis.

Intramine injected intramuscularly is painful, but it leaves no induration behind. The pain can be diminished by applying heat to

the part and giving aspirin internally. Intramine is also less painful if it is neutralised beforehand with sodium hydrate; as a rule, an ampoule containing 5 c.c. requires four drops of a 4 per cent. solution of sodium hydrate. Intramine is less painful still if the colloidal emulsion is prepared immediately before use. For this purpose it can now be obtained in two separate solutions.

I have given over 500 intramuscular injections of the mixture, and in not a single case was the patient more inconvenienced than is the rule after an intramuscular injection of mercury. The two solutions are labelled "Intramine I" and "Intramine II." Just before use mix one part of No. I solution with two parts of No. II solution, and inject 1–5 c.c.

The therapeutic action of intramine is less when the intravenous route is chosen, but it has the advantage of being painless. Occasionally it produces venous thrombosis if made too alkaline, as the emulsion has to be neutralised before use. As a rule, 100 c.c. of intramine require 5 c.c. of a 4 per cent. solution of sodium hydrate. If the intravenous route is chosen it is best to inject intravenously a day or two before 100 c.c. of colloidal iodine in order to prevent the mercaptan-group, which results on the breaking down of intramine, from combining with oxygen.

$$2\ R.SH + O = R.S.S.R. + H_2O$$
$$2\ R.SH + 2\ I = R.S.S.R. + 2\ HI$$

In every case in which intramine is being used, its action can be enhanced by iodine, owing to the fact that iodine converts the mercaptan-group back again into di- sulphide protein, which is the reducing ferment or reductase. This action is diagrammatically represented in the second of the two above equations.*

References.

(1) McDonagh.—*Practitioner*, January, 1918.

(2) *Idem.*—*Lancet*, June 16th, 1917.

(3) *Idem.*—*Links in a Chain of Research on Syphilis* (1916), Harrison & Sons, 45, Pall Mall, London.

(4) *Idem.*—*Med. Press and Circ.*, December 5th, 1917.

* The colloidal iodine and manganese, under the names of collosol iodine and collosol manganese, may be obtained from Crookes Collosols, 50, Elgin Crescent, London, W.11. Intramine may be obtained at the British Drug Houses, Graham Street, City Road, London, N.1.

(5) *Idem.*—*Practitioner*, December, 1916.
(6) *Idem.*—*Ibid.*, July, 1917.
(7) *Idem.*—*Brit. Journ. Derm. and Syph.*, July–September, 1917.
(8) *Idem.*—*Practitioner*, May, 1918.

A NOTE ON MULTIPLE SMALL ANGIOMATA: ANGIOKERATOMA AND MULTIPLE TELANGIECTASES.

By H. G. ADAMSON, M.D., F.R.C.P.

At a meeting of the Dermatological Section of the Royal Society of Medicine, on March 21st, Dr. Sibley* showed the case of a youth "for diagnosis," and a discussion arose as to whether this case was an example of multiple telangiectases, such as have been described by Osler and Parkes Weber, or of multiple purpuric lesions.

A comparison of Dr. Sibley's case with some other cases which have been recorded will, I think, make it clear that it belongs neither to the group of "multiple telangiectases of the skin and mucous membranes" associated with "a family form of recurring epistaxis" of Osler and Parkes Weber, nor is it an example of purpuric lesions; but that it is what has been described as the "aberrant form" of the angiokeratoma of Dubreuilh, Cottle, Mibelli, and Pringle.

In the *British Journal of Dermatology* for April, 1898, the late Dr. William Anderson published a case which is, in every respect, similar to Dr. Sibley's case, and in which the peculiarity of the eruption "rested in its widespread distribution, in the almost complete immunity of hands and feet, and in the absence of any tendency to chilblains or local embarrassment of circulation." The diagram of the distribution of the small angiomata in Anderson's case and that of the histological features would serve equally well for Dr. Sibley's case. As pointed out by Anderson (and, previously, by Dubreuilh), the warty condition found in cases where this complaint is limited to the hands and feet appears to depend upon purely local causes, is a secondary and accidental feature, and is slight or altogether absent when the affection occurs on other parts of the body.

Similar examples of this aberrant form of angiokeratoma have been recorded by Dubreuilh, by Fordyce, and by Sutton, in which

* See p. 109.

the lesions had unusual distributions on the trunk, the limbs, and the scrotum. The coloured plates showing the lesions on the scrotum in Fordyce's case, and in a similar case by Sutton, recall exactly the appearances of the scrotum in Sibley's case.

The peculiarity of the histological appearances, as shown in all the published drawings of sections of "angiokeratoma," and in Dr. Sibley's sections, is that the little blood-cysts are actually in the epidermis, and this is explained by all observers as resulting from a dilatation of the capillaries in the papillæ, which, pushing up into the epidermis, get cut off by lateral down-growth of the interpapillary processes

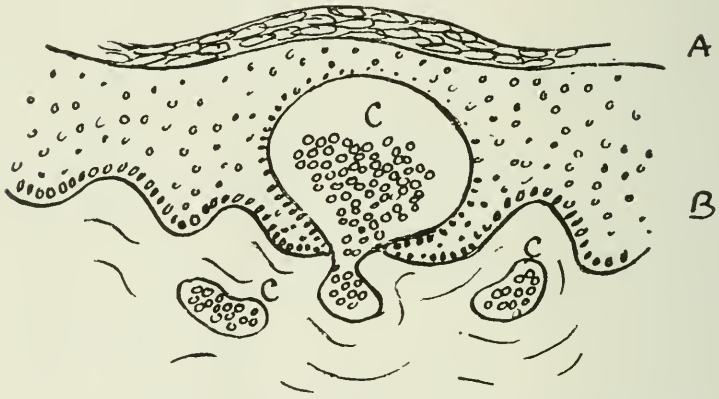


Diagram showing how the dilated papillary vessels become cut off by down-growth of the interpapillary processes to form blood-cysts in the epidermis. A. Horny layer of epidermis. B. Stratum Malpighii. C. Angiectases occupied by blood-vessels.

(see diagram). The early stages of this process are well shown in Wisniewski's drawings in the *Archivs für Dermatologie und Syphilis*, Bd. xlv, 1898, and there is a good coloured plate in Joseph and van Deventer's *Atlas of Cutaneous Morbid Histology* (Pl. II, fig. 4). Many of these blood-cysts eventually become cut off entirely from the derma, and thus is explained why it is sometimes impossible to express their contents, so that they simulate purpuric lesions. Sometimes the contents of these little blood-cysts become converted into a granular detritus, and sometimes they come to the surface and become exfoliated. All regard the verrucosities as secondary and accidental.

It should be noted that the angiomata in these cases of "aberrant angiokeratoma" are not of the tufted or spider-like type known as

"Nævus araneus," which may occur singly or multiple. Clinically, they bear a closer resemblance to the "seed-like" angiomata, known as "De Morgan's spots," which occur on the trunk in elderly persons, and, according to some observers, particularly in those who are the subject of malignant tumours; although, from the ætiological side, they ought probably to be distinguished from these.

They ought, perhaps, to be distinguished too from the small angiomata which may occur over a limited area of the trunk or limbs, as in the case of "bilateral telangiectases" described by Colcott Fox, and in a similar unpublished case of the writer's with unilateral distribution, which are possibly examples of segmental nævus.

They differ also in many respects from the cases of "multiple telangiectases" described by Osler and Parkes Weber, in which the angiomata, for the most part of the nodular type, but sometimes stellate, occurred particularly upon the cheeks, lips, and ears, and on the mucous membranes of the nose and buccal cavity, and were associated with a family form of recurring epistaxis.

A very full record of the published cases of multiple telangiectases or angiomata, a useful commentary on those cases, and a careful endeavour to sift them into their proper order was made by the late Dr. T. Colcott Fox in a paper in this Journal in 1908 while discussing the position of his case of "Bilateral Telangiectases of the Trunk, with a History of Marked Epistaxis in Childhood and Recent Rectal Hæmorrhage."

But the proper classification of these various forms of multiple angiomata or telangiectases is obviously a difficult matter until we know something more of their causation and ætiological relationships. It is not clear that the type of lesions form a sufficient basis for their classification, since the various types—the punctiform, the raised nodular, and the spider-like or stellate—may sometimes occur together in the same case. There does, however, seem to be a distinction between the lesions found in the cases of the angiokeratoma group, whether true or aberrant forms, and those of other groups, in that the blood-cysts in the angiokeratoma are often situated in the epidermis itself, while in the other forms the dilated blood-vessels or cyst-like formations are beneath the epidermis. In the most recently published case of the Osler type of telangiectasis, namely, that recorded by Dr. Norman Paul in the *British Journal of Dermatology*

for January–March, 1918, the photo-micrograph of a section shows the blood-cysts in the corium beneath the epidermis, but none actually in the epidermis. This is also the case in a drawing of a section made by myself of Dr. Colcott Fox's case of bilateral telangiectasis published in this Journal in 1908 (p. 148).

Without attempting a complete or final classification of these angiomata upon ætiological grounds, about which we know at present so little, it may be useful, perhaps, to divide them into clinical groups as follows :

Nævi.

1. Nævus araneus, either single or multiple.
   (A case of multiple telangiectases of the Nævus araneus type described by myself in the *St. Bartholomew's Hospital Reports* in 1909, and again in this Journal by Dr. Sibley in 1914, possibly belongs to this group.)
2. Multiple telangiectases with segmental distribution—a form of segmental nævus.
   (The case of bilateral telangiectases of Dr. Colcott Fox and a similar unpublished case of the writer's with unilateral distribution.)

Acquired.

1. De Morgan's spots—the bright red, slightly raised, seed-like growths common on chest and trunk in later middle life (associated, according to some writers, with malignant tumours or diseases of the liver, but frequently seen without this association.)
2. Telangiectatic lesions of the skin associated with Graves' disease (Hyde).
3. "A family form of recurring epistaxis with multiple telangiectases of the skin and mucous membranes." The angiomata in these cases are mainly of the raised nodular type, and situated especially on the cheeks, lips, ears, and nasal and buccal mucous membranes.
   (Cases of Osler and Parkes Weber and many others, most of which are noted by Weber and by Colcott Fox.)
4. An aberrant form of the angiokeratoma of Mibelli and Pringle, in which the lesions occur particularly upon the scrotum, trunk, and extremities. Sometimes a family complaint, but unassociated with recurring epistaxis.
   (Cases of Fordyce, Anderson, Sutton, Sibley, etc.)

References.

(1) Parkes Weber.—"Multiple Hereditary Developmental Angiomata (Telangiectases) of the Skin and Mucous Membranes with Recurring Hæmorrhages," *Lancet*, 1907, vol. ii, p. 160 (with an epitome of all the recorded cases of the Osler type of multiple telangiectases).

(2) Fox, T. Colcott.—"A Case of Bilateral Telangiectases of the Trunk, with a History of Marked Epistaxis in Childhood and Recent Rectal Hæmorrhage," *Brit. Journ. Derm.*, May, 1908, vol. xx, p. 145 (drawing of histology, p. 148).

(3) Paul, S. Norman.—"Hereditary Angiomata (Telangiectases) with Epistaxis," *Brit. Journ. Derm.*, January–March, 1918, p. 27 (photo-micrograph of histology).

(4) Dubreuilh.—"Angiokératome plan," *Ann. de Derm. et de Syph.*, 1893, p. 379.

(5) Anderson.—"A Case of Angiokeratoma," *Brit. Journ. Derm.*, April, 1898, p. 113 (diagram of distribution and drawing of histology).

(6) Fordyce.—"Angiokeratoma of the Scrotum," *Journ. of Cut. Dis.*, 1896, p. 81 (coloured drawing).

(7) Sutton.—"A Clinical and Histological Study of Angiokeratoma," *Journ. Amer. Med. Assoc.*, July 18th, 1911, p. 189 (drawing of scrotum).

CONGENITAL UNILATERAL NÆVUS ("NÆVUS UNIUS LATERIS") OF ANGIOKERATOMATOUS STRUCTURE, WITH LOCALISED HYPERKERATOTIC OUTGROWTHS ON THE CONGENITALLY TELANGIECTATIC BASIS.

By F. PARKES WEBER, M.A., M.D., F.R.C.P.

The patient, A. S—, aged 15 years, was a healthy and well-developed lad excepting for a congenital vascular nævus, which involved a great part of the left lower extremity, including the gluteal region. The vascular nævus was a diffuse superficial capillary and venous angioma, some of the superficial veins being greatly dilated as well as the capillaries. On this congenitally telangiectatic basis there were some hyperkeratotic outgrowths about the knee,

somewhat resembling those of the nature of Ichthyosis hystrix, and there were likewise scattered small horny follicular "plugs." Over the lower part of the front of the shin, and in connection with the nævus, were two chronic ulcers, which had followed football injuries two years previously. By rest in bed and the application of an ointment of calcium iodide (5 per cent. in vaseline) and gentle pressure of the limb by bandaging, these ulcers were soon healed up, and it was then thought advisable to remove the ichthyotic keratomatous outgrowths about the knee by excising the patches of angio-

To show the angiokeratomatous structure (× 30) of one of the horny patches from near the knee. The large dilated blood-vessels are immediately beneath the epidermis, the hyperkeratosis of which is indicated at spots where the horny substance has not been completely broken off by handling.

matous skin from which they grew. This was accordingly done by my surgical colleague, Mr. A. Compton, and the two wounds from the operation healed up practically by first intention. The microscopical sections of the portions of skin removed at the operation showed distinctly the angiokeratomatous nature of the changes, namely, hyperkeratosis of the epidermis on a basis of superficial telangiectasis, the blood-vessels in the corium just below the epidermis being greatly dilated. The accompanying figure shows the microscopic appearances under low magnification (× 30) of a section from one of the horny

patches near the knee. The much dilated blood-vessels are immediately beneath the epidermis, and the hyperkeratosis of the epidermis is indicated at spots where the horny substance has not been completely broken off by handling.

It was necessary to excise the bases of the hyperkeratotic outgrowths in order to hinder their renewed growth, which apparently occurred if they were simply knocked or torn off.

Remarks.

It is, perhaps, worth noting that the boy has one or two small vascular nævi or angiokeratomata on the left side of the scrotum, and I believe that so-called angiokeratomata of the scrotum are often nævi. The combination of hyperkeratosis with a telangiectatic condition of the skin occurs in several cases, which have been described under such headings as Erythrokeratosis, Erythrokeratodermia, Angiokeratodermia, etc. Most of these conditions have been of congenital or developmental origin, as, for instance, certain cases of (occasionally familial) hyperkeratosis of the hands and feet associated with diffuse telangiectasis; the cases which may be classified under Brocq's heading (1902) as examples of "congenital ichthyosiform erythrodermia with hyper-epidermotrophy"; and cases resembling Darier's "symmetrical verrucose erythrokeratodermia" (1911).

A LEPER COLONY ON THE BORDERS OF ABYSSINIA.

By ARTHUR INNES, M.B.

Having recently had occasion to inspect the Leper Colony of Ras-el-Fil, which is situated ten miles from the Abyssinian frontier at Gallabat, I thought a brief note on this unique spot would be of some interest.

This is the only leper colony in the Sudan, as it is the only one in the northern part of Africa, although the disease is common in and around Omdurman, and sporadic cases are spread all over the country, while in Abyssinia it is so common as to excite little interest in the natives, and each village has its quota of dependents and beggars whose leonine countenances and maimed limbs are the warrants for their neighbours' charity. A British official who was formerly in

Adis Ababa (the Abyssinian capital), tells me he frequently partook of meals with an Abyssinian official who had a well-marked anæsthetic leprosy which he concealed, while dreading the day when deformity would make it evident.

Ras-el-Fil, which means the elephant's head, is so called from a small hill of that shape at the end of which it lies. It is ten miles distant by the main road from Abyssinia, and two miles from that point by a path at right angles to that road, through gum trees and mimosa, sycamores and the odour of frankincense, with teytl, arill, gazelle, and millions of guinea-fowl rushing off as the camels trot along the path. Then the trees grow thinner, the path becomes stony, the little hill appears, and the tops of the tukls, or huts, appear. We are met by the Sheikh or headman, who is one of themselves, and has been appointed, we imagine from his dexterity in voicing their complaints, which he delivered at once, and I give them here to show that their small comforts concern them more than their distressing condition. They were :

(1) Meat is all bone and quantity small.

(2) They have had no sugar for a month.

(3) Clothing is falling to pieces.

(4) A woman died in the colony last year, and left to the inmates a bull, a donkey, and one hundred and twenty piastres (£1 4*s*.), but they have not come yet.

(5) Two new patients whom I sent in from Gallabat want their best angaubs (native beds) sent out to them.

Having settled all these to their liking, even to the sugar, which though far from being so expensive as it now is in Britain, has nevertheless risen into the rank of luxuries, we pulled our camp, table and chair into the shade of a rakuba, or shelter, and summoned the colonists around.

The total number present was twenty-six, nine being men and seventeen women, and a wonderfully cheery lot of invalids they were, ready to see the faintest germ of a joke and anxious to make one if they saw an opening. This was possibly, however, from two reasons :

(*a*) That my visit was a sort of red-letter day in their monotonous year.

(*b*) The night had been one of the Sudan's chilly blasts, when even the healthiest wraps himself in blankets and down quilt, so that they,

feeble, thin clad, and with wearying pains of arms and legs had spent a wretched night, but with the sun well up when I started my inspection, they were beginning to find warmth and relief.

The periods of duration of the disease and length of residence in the colony that I am about to give are not based on actual dates, for such are not known here, but on some outstanding event such as the Mahdia, or British occupation of the Sudan, or even on such personal details as "I had no beard then," meaning by that that the matter under discussion happened in his early youth.

Allowing for these, I think the periods are approximately accurate, and give an average duration of thirteen years with seven cases over twenty years, that is, the patients were already affected when the Battle of Omdurman was fought.

The average duration in the colony is six years, with four women who have been in it for at least seventeen years, having arrived shortly after the place was founded.

Infectivity.

In four cases the husband and wife have both been lepers, in all such one being leprous long before the other.

There is, however, no record of any child having become a leper, although all the women had children before entering the colony.

But though no leprosy developed in the children, almost all died young, and there is only one grandchild recorded. An attempt to ascertain the causes of these deaths struck them as exceedingly foolish, for their own common-sense told them it was from "Robuna," or "Allah" (both names for God), and no further inquiry was necessary.

I, therefore, simply state the fact, which probably shows that the offspring of lepers are weedy, and readily succumb to infantile diseases. Apropos of this, and disproving the statement that lepers are sterile, there is a woman called Ataminno el Shilkáwyi, a Shillook slave, and not yet more than thirty years old, who has been ten years leprous and seven years in the colony. Her type is anæsthetic, but her face, which is still of the dusky beauty type, is beginning to show the nodular appearance. This woman has been twice delivered of children while in the colony, the fathers lepers, and since dead. The first child was born healthy, and lived for two years, when it died after

the rains, which probably means of malaria; the second was still-born. I asked her if she thought it possible there might be more, and she answered that it was in the hands of Allah, which, in the lax morality of the Sudan, doubtless means she is Barkis-like, but now sterile. Another couple married a year ago, but there has been no child.

Onset.

There was little hesitation in answering this, as the facts seem to have been sufficiently gross to make a lasting impression.

Twelve gave a history of violent itching.

Three had pain in their bones.

Five had watering of the eyes.

Seven had blisters, with or without itching.

Two had red spots.

The absence of the dull-red flush so commonly described is not to be wondered at, as we are speaking of people who are mainly dark Sudanese, only three of the inhabitants being Arabs, and it was two of these who voluntarily spoke of red spots on their arms.

Present Symptoms.

All have a certain degree of bone pain, but two men and seven women complained bitterly of it and state that they cannot have sleep for it.

One tuberculous case states that his nose is painful, and one woman, blind in one eye as a result of an accident and not leprosy, says this blind eye is very sore.

All have some degree of leucodermia except three purely nodular cases, but in nine the vitiliginous areas are extensive.

Two have trophic bullæ on the stump of the hand, but they are painless, and all whose feet are affected have small ulcers under the great and little toes.

One woman without any signs of nephritis has much swollen legs, the swelling not pitting to pressure.

All the anæsthetic and mixed cases, *i. e.* all except three, have loss of fingers, in some all being off, but it is surprising how they gripped with their thenar eminence and the palm of the hand.

In most, too, the feet are much mutilated, and one woman has to be assisted to walk.

Three, two tubercular and one mixed, are blind as the direct result of the disease.

Present Life.

When a case is seen by a medical officer, which case probably comes from some outlying village along the Sudan side of the Abyssinian frontier, where the natives have taken umbrage at the lepers' helplessness, and he diagnoses it as an undoubted case of this disease, the affected person is sent off under police escort, and taking with him what personal belongings he may wish, to Ras-el-Fil.

Having arrived there, the Sheikh takes his new inhabitant in charge and the escort's responsibility ceases. A tukl (or hut) is allotted to him, or if one does not exist he shares one until such time as a new one is put up, the Government supplying the wood supports and the lepers doing the work. There is no obligation on the person to stay, and two "escapes" took place last year, but they returned after a month or two, for in no place are they so well off as living amongst their afflicted brethren in the ease and independence of this remote settlement. There is an excellent well, which is the greatest blessing one can have in this country; they grow small patches of dourha (the corn of the Sudan), and have this year been ambitious enough to grow some native cotton with which they hope to weave, by the very simple native loom, some extra covering for themselves.

Nor are they neglected by the Government, for each month they receive the following from Gallabat, the nearest station, which is a journey of at least twelve miles away:

Meat	2 okes, *i. e.* about 6 lb.
Coffee	1 rotl, *i. e.* about 1 lb.
Onions	1 ,,
Oil	1 ,,
Salt	1 ,,
Shatta	¼ ,, (This is the native red pepper, which is their chief condiment.)
Dourha	50 rotls.
Sugar	½ head, *i. e.* about 1¼ lb.
Soap	1 piece.

The soap seems a shocking waste, for I saw no evidence of it having been used.

The meat is sent twice a month, and new clothing, a pair of loose drawers, and a tobe (or wrapper) is sent once a year.

The medical officer of Gallabat rides out on his mule once a week, to see how they all are and leave some more "dermatol," which has proved the most popular application so far to their ulcers and sores.

No chaulmoogra nor gurjun oil have ever been used, and the only medicament given has been an opium pill or similar sedative where the bone pains have been excessive.

Microscopic Work.

Working under the conditions there we could not do much, but were able to get a few smears from noses, eyes, and open sores. All these from nodules showed Hansen's bacillus in great number, and one eye which was simply showing a conjunctivitis gave a good positive slide.

None of the trophic ulcers gave lepra bacilli, and one foot ulcer gave a mycelial growth, which is not to be wondered at in a person walking barefoot amongst dry grass all day.

Whilst we were taking these smears we asked the Sheikh to collect some bugs for us off the angarnbs (native beds), hoping by this to find corroboration of the belief that these insects convey the disease. The Sheikh returned in a few minutes with the box we had given him full and apologising that he had brought so few. Fleas do not exist out here, but bugs and ticks are everywhere, and Ras-el-Fil is evidently well supplied. These bugs we sent on to the Wellcome Research Laboratory, Khartoum, and Dr. Chalmers examined them but failed to find any sign of leprous infection. I had thought this mode of convection possible, especially as Sands and Long had found bugs infected, but if ever bugs had a fair chance of being infected it was at Ras-el-Fil, and the fact that they were negative after the careful searching made in Khartoum has weakened my faith.

I think there can be no doubt about the infectivity of leprosy, but it is of a very low order, as is shown by four husbands and wives being infected, the one from the other, but not one child of all those born to the inmates of the colony had at any time been infected.

Further, though the disease is endemic in the Sudan, one does not find evidences of it ever becoming epidemic. There is, however, one

very interesting point, and that is how cases occur mainly in certain districts far separated from one another by areas where cases are rarely seen, *e. g.* around Omdurman, Southern Kassala Province, and Southern Kordofan Province are places where one will always see a few cases, and the problem is made stranger still by the people affected being frequently of the Takruni, Burnu, or Fellata tribes, who are the most wandering peoples of the country, starting near the Niger in the extreme Western Sudan, and leisurely trekking towards the Red Sea and Mecca, staying months or years in certain places and perhaps abandoning their holy pilgrimage to found a Fellata village when they chance on abundant water and good soil.

On one point we differ from most observers and that is in the proportion of males to females affected. It is commonly stated that the incidence is 50 per cent. higher in males than in females, but at Ras-el-Fil we had seventeen women to only nine men, and allowing for the preponderance of female over male population, which, at the nearest township of any size, viz. Gedaref, is 13,000 of the former to 8000 of the latter, still gives a higher incidence among females than males.

Careful observers with considerable knowledge of the Sudan and its peoples, have told me that there seems a good case to be made here for the possible factor in infectivity being fried fish. They state that in Southern Kordofan certain tribes eat the dried Nile fish, which is sold in every market place within reasonable reach of the Niles or their tributaries, *e. g.* Rahud, Dinder, or Atbara, whereas other tribes will have none of it, and only those who eat of the dried fish ever show leprosy amongst them. As I hope, in the course of the next year, to see these parts, and around the Bahr il Ghazal, it will be interesting to see how far this holds, but even granting it, we have still the outstanding feature that of the thousands who eat, it is an extremely small number who are affected.

On one fact, only, do I now seek to make a personal statement, and that is that I think the bed bug has nothing to do with the carrying of leprosy.

I apologise for the scrappy nature of this paper, which is written where books of reference are not available, and the learning of facts is interfered with by the ignorance of the people and their readiness to put calamity, disaster, death on the debit side of Allah's ledger,

and place every little improvement in their condition to the credit of the Government, so long as an official of the Government is speaking to them.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on January 17th, 1918, Sir James Galloway, President of the Section, in the Chair.

Dr. E. G. Graham Little showed a case of *Acne keloid*. The patient was a man, aged 32 years, a porter at St. Mary's Hospital. His history was very definite and emphatic, to the effect that the eruption began less than three months ago, and was not preceded by any symptoms. He had never had Acne vulgaris. Two types of lesion were present, an early perifollicular plug of blackened and hardened tissue, the whole lesion looking very like an acne comedo, but differing essentially from this in the feature that pressure upon it did not result in the squeezing out of the plug, which could be dislodged with a fine scalpel, leaving an infundibuliform pit round the hair. Lesions of this type were found over the greater part of the scalp, with the exception of the area between the vertex and the site of the anterior fontanelle. The sound lesion was seen to be especially profusely distributed over an area on the occipital region, about 2 in. wide in the vertical axis, bounded by the lines joining the upper edges of the pinna and the lower lobes of the ears. Here there was a broad band of skin closely occupied by firm, hard, shotty papules, with a base of about $\frac{3}{16}$ in. diameter, and raised about $\frac{1}{8}$ in. from the general level of the skin. These lesions were a deep red, and in the great majority there was no obvious suppuration; in quite a few there was a very small bead of pus visible. Lesions of this type were also found about the temple, but elsewhere the eruption consisted of the non-inflammatory comedo, like a plug of hyperkeratosis. It was especially to be noted that the nape of the neck was free, the lower limit of the eruption on the occipital area being the line joining the two lobes of the auricle, a line which was well above the level of any stiff collar. The scalp was otherwise quite healthy, there was no seborrhœa, and the hair was unaffected.

The patient was a robust, well-set-up fellow, clean in his person, and his occupation, which was chiefly attendance at the door of the hospital, did not involve getting particularly dirty.

It would be noted that there were no bands of induration such as form so conspicuous a feature of the old-established disease. But this was an unusually early case, in date and in type. The onset had been exceptionally rapid, and the area covered was unusually extensive; nevertheless he regarded the case as certainly an example of Acne keloid, probably one of the earliest in date that had been recorded. A complete bacteriological examination had been made by his colleague, Dr. John Matthews, who reported absence of the acne bacillus, and otherwise a varied but not specific bacteriological content.

A subsequent report would be made on this case including its histology.

Dr. Whitfield said that this case was not one of true Acne keloid. He did not believe it would develop into keloid masses. It was practically Acne indurata of the scalp. He had seen a fair number of those cases, more since the war started, which he thought was partly due to the filthy cap worn by these men from the Front: possibly the steel helmet aggravated the condition as well. If that man were to daub his affected areas twice a day with a 20 per cent. solution of salicylic acid in alcohol, the lesions would probably disappear. He could not conceive Acne keloid clearing up after such an application.

Dr. H. G. Adamson said this case appeared to be a typical example of the earlier stages of Acne keloid. The intensely hard dome-shaped papules present in this case were described by Kaposi as the earliest lesions. Kaposi pointed out that the early lesions were papules of uniform consistence, and not pustules. The appearances here were exactly those of an early case of Acne keloid of which he published a photograph in an article on "Dermatitis papillaris capillitii (Kaposi), or Acne keloid."* The conclusions at which he arrived in that paper supported the early view of Kaposi that this disease was a plasma-cell infiltration, and probably due to a microbic infection, which was neither that of the acne bacillus nor of ordinary pus cocci—that the disease was neither related to Acne vulgaris nor to sycosis, nor was it a true keloid.

Dr. Graham Little (in reply) said that Dr. Whitfield's suggestion of an infective folliculitis from a dirty cap was best met by pointing to the extremely scanty degree of suppuration. Moreover, the sites where infection from this source would be most pronounced were not the sites where such inflammation as was present was at its worst. Thus, for example, there was no inflammation on the forehead where the constriction of a cap was greatest. Moreover, there was no reason to assume that the unavoidable dirt of the headgear of the trenches should be found in this case, and the man's general appearance further negatived this supposition. Nor could this be regarded as an "Acne indurata," for surely

* *Brit. Journ. Derm.*, 1914, xxvi, p. 75, fig. 2, Case 2.

an Acne vulgaris beginning at this age, occupying the sites here affected, and with this development would be unique. The hardness of the inflammatory nodules was highly characteristic of Acne keloid. With regard to the comedones on the forehead, these had been reported in true Acne keloid; they were scanty in the present instance.

Dr. E. G. Graham Little showed a case of *Erythema ab igne, or possibly "Melanopathia syphilitica" of Wilson.* The patient was a man, aged 45 years. He was a mortuary porter, in poor general health, anæmic, and ill-nourished. He admitted that he had sat by the fire a great deal in the past few months, the eruption dating from six months ago. Clinically this was very like that of Erythema ab igne, a reticular congestion and staining with large meshes and wide trabeculæ, occupying the skin in front of the knees on both sides, but more marked on the right side, from the patella down to the level of the junction of the middle and upper third of the limb. There was less accentuated staining at the inner side and on the calf. There was no ulceration in these areas, but there was a large vesicle situated immediately over a branch of the mesh-work on the right leg, probably due to friction or injury. He said that he had a sore on the penis, lasting about a fortnight, some fifteen years ago. The Wassermann reaction was negative at present.

Wilson described a case of reticular discoloration of the leg in a young woman with symptoms of syphilis, and named the plate "Melanopathia syphilitica" in his Atlas, "Portraits of Diseases of the Skin," pl. 24. Ehrmann had redescribed the condition as "a new vascular symptom of syphilis." Wilson's plate certainly bore a strong resemblance to Erythema ab igne, and his identification of the eruption with syphilis was apparently overlooked or not accepted. There would seem, however, to be a reticular syphilide, rare, and very difficult to distinguish from the eruption of Erythema ab igne. This case might be an example of the syphilitic condition if the sore on the penis might be taken to have been a hard chancre.

Dr. H. G. Adamson said that this was Erythema ab igne. The faint network of pigmentation beyond the more obvious network of inflammatory infiltration favoured this view.

Dr. W. Knowsley Sibley showed a case of *Lupus vulgaris with cutaneous horns.* Male, aged 26 years. Father and uncle said to have died of phthisis. Six brothers and one sister living and well. His next younger brother also suffered from lupus.

This man's trouble commenced with a patch on the left cheek fifteen years ago, and it had gradually extended. He had been in one of the London infirmaries for some time. For some ten years he had had these curious cutaneous horny growths appearing round the left side of his mouth, especially on the upper lip. Horny lesions were described as occurring in lupus, but he had never seen one in which horny growths had been as prominent as in this case. They were true horny substances, not warty nor crusty, and were very firmly attached to the skin. Apparently there was no epitheliomatous change at the base of the horns, but he presumed it was a case in which such change might occur later. He had also extensive superficial lupus on the upper part of his body and on the right foot.

Dr. S. E. Dore showed a case of *keloid*. The patient, a young woman, said she had had ulcers on both shins seven and a half years ago, and that they were preceded by a rash on the trunk. The ulcer on the right leg healed in fourteen months, leaving a healthy, more or less circular scar, which was visible now. The sore on the left leg nearly healed in eighteen months, but a small "pimple" was left, and this gradually increased in size to the present time. There was now a raised, button-like growth about the size of a shilling on the site of the scar on the left leg. The edges were well defined and without any "processes," the skin over the tumour was slightly thin and shiny but otherwise normal, and the growth was firm to the touch, movable over the underlying tissues, and did not show any evidence of inflammatory changes. As there was a scar in a corresponding position on the opposite leg, and a history of the tumour having originated in scar tissue, he made the diagnosis of keloid, but he would be glad of alternative suggestions.*

With regard to treatment, he suggested radium, but it had been suggested that the growth should be excised and microscoped. If it was a keloid, however, he doubted the advisability of excision, although he had heard it stated that if a keloid was sufficiently widely excised it did not recur.

Dr. S. E. Dore showed a case of *keloid in a child, aged 7 years*. This little girl was brought to him in the same week as the other patient, and he thought she might usefully be compared with her.

* Microscopical examination showed the growth to be a variety of fibroma.

The story was that five weeks ago she was bitten by a dog on the left cheek, in several places. A fortnight ago, when she was brought to him, there were linear keloidal growths at the inner and outer canthus of the left eye and similar raised growths along the naso-labial fold, at the angle of the mouth, and in the centre of the cheek. The case was also interesting in comparison with the other patient from the short incubation period, if he might use the term. His own feeling was that radium should be applied at once, but Dr. Whitfield was of the opinion that cases of this type, which he regarded as one of hypertrophic scar tissue, and not true keloid, improved spontaneously, and should not be treated for several months.

Meeting held on February 21st, 1918, Dr. J. H. Stowers, Vice-President of the Section, in the Chair.

Dr. E. G. Graham Little showed *a syphilide with resemblances to Pityriasis rosea.* The patient was a young naval officer, who denied any sexual contact. At the beginning of December last he noticed some "sores" on the penis, and showed them to a practitioner in Ramsgate, who diagnosed the condition as Herpes præputialis. There were at first three vesicles, which a few days later increased to six. They had healed over in about ten days. About December 17th he suffered from a severe "cold," with some catarrhal sore throat. On January 4th there was an acute eruption affecting the vest area, of pale nummular patches very like Pityriasis rosea. He was seen by the exhibitor just a month later, when the eruption was difficult to differentiate from Pityriasis rosea. It followed the same distribution: there were no papulo-squamous lesions, and the mucous membranes were intact. On the penis there were several hard nodules in the site of the earlier herpetic lesions, and the glands were greatly enlarged all over the body. The fauces were congested, but there were no mucous patches. The patient had been treated by the practitioner at Ramsgate with a course of liq. hyd., and this induced him to defer carrying out the Wassermann test.

Postscript.—The Wassermann test was not done until after the meeting. It proved positive, so that the diagnosis was in favour of the syphilitic causation. He had seen cases of Pityriasis rosea in

which the diagnosis was not in doubt—one quite recently, in which the glandular involvement was quite as extensive and pronounced as in this case, and he had hoped that this would prove to be of this character.

Dr. E. G. Graham Little showed a case for *diagnosis*. The patient was a man, aged 45 years. The eruption consisted, when fully developed, of large ringed elevated patches of a deep bluish purple colour, and a warty surface, rather like hypertrophic Lichen planus. They commenced with a small, very slightly scaly, pink patch, not at all like a Lichen planus papule, as the deepening of colour, the ringed halo, and the subjective sensation of itching only came with the enlargement of the patch. The condition started about six months ago with no explanatory circumstances. None of the lesions had disappeared, but fresh lesions had continually arisen, so that there were now numerous patches present, distributed chiefly on the legs below the knee, but present on the forearms and trunk. The mucous membranes were intact. He had not formed any opinion on the case as yet, which was quite new in his experience, but hoped to make a further report later.

Sir Malcolm Morris showed a case of *persistent erythema*. The patient, was a clerk, aged 48 years, who had suffered from a persistent macular erythematous eruption, coming out in crops, for six years. There was a special localisation to the hands and feet, but the eruption was also scattered over the body. The macules were bright red in colour and there was no perceptible pigmentation. All of them disappeared on pressure. Itching was slight or absent, and there was slight, factitious urticaria.

Dr. Graham Little said that this was undoubtedly Urticaria pigmentosa. It was exactly like two cases shown on one afternoon at the Section—one by Dr. Sibley and one by himself. The eruption in both was especially prevalent on the forearms. There was nothing on the feet. It was usual in adult cases to see it on the wrists and forearms. The histology in the adult was similar to that in the young, and he could see no reason for denying the identity of the disease.

Dr. Gray said that an interesting feature, which he had not observed in other cases, but which Dr. Graham Little said was not uncommon, was that the colour disappeared on pressure. There was no pigmentation in these lesions, nor were there hæmorrhages. It was obviously a congestive or nævoid condition. There had been two types of Urticaria pigmentosa described from a histological point of view—those in which there was an increase in the mast cells, and those in

which there was no such increase. It would be interesting to know whether this case was one of the latter type, in view of the supposed relationship of mast cells to pigmentation.

Dr. J. L. Bunch showed a case of *Lupus mutilans*. The patient, a labourer, aged 36 years, was treated at Addenbrooke's Hospital when a small child, and again when aged 18 years. He had not had any treatment since. The face began to be scarred when he was aged 2 years, and the process had gone on slowly ever since. The hands became involved when he was aged 12 years, and the first fingers of both hands are now smaller than the others, and were both drawn down on to the palms, much resembling Dupuytren's disease. But there was no contraction of the palmar fascia. The drawing-down process began when he was aged about 12 years, and had proceeded slowly since. There was scarring of the dorsa of both hands. The face was now distinctly scarred, the scar tissue practically involving the whole face. The lips were typically prominent and puffy. The ears were distinctly ulcerated, and so were both ala nasi. This ulceration had resulted in the formation of much scar tissue. There were two or three small recent lupus nodules on the face.

The man seemed to be in good general health, and was capable of hard outdoor work.

The patient had only just come under his care. He proposed merely to treat the few active nodules he had; no surgical treatment would be of benefit, and forcible straightening of the fingers would do more harm than good. The first finger on both hands was smaller than the others. As he was doing hard outdoor work, he would not listen to such a suggestion as amputation of fingers.

Dr. S. E. Dore showed two cases of *Alopecia areata*. Both patients were laboratory attendants. In the first patient, aged 40 years, the hair began to fall six weeks ago, when he noticed a single bald patch on the crown of his head, followed rapidly by other patches which coalesced, the scalp being nearly completely bald in six weeks. The other patient, aged 17 years, also had total alopecia of the scalp of six years' duration, and he had a brother, not a laboratory attendant, who had been bald for six years, but had now recovered. In seeking for a common factor to account for the alopecia in these two patients the supposition of contagion might be discarded, nervous shock did not seem to have entered into the ætiology, and, although he had seen

cases recently which had been attributed to air raids, these two patients seemed to be particularly impervious to that form of nervous shock. Another possible factor common to these two patients was that of microscopical work and eye-strain, and although neither of them had errors of refraction, nor showed evidence of having suffered in this manner, it occurred to him that, as Dr. Whitfield had recorded cases in which errors of vision had been the cause of Alopecia areata, the strain of constant microscopical work might be a possible cause. The first patient had stained a section of a hair from a scale, and it showed a collar of micro-bacilli surrounding the hair. but he thought Sabouraud's theory that Alopecia areata was an acute localised seborrhœa could not be substantiated, and was not generally held at the present time. It would be interesting to hear if the disease had been noted in other laboratory attendants doing microscopic work. Neither of these patients had had epidemic influenza, but one of them suffered from glycosuria.

Dr. Graham Little considered pain to be very essential as a factor in the production of Alopecia areata. He saw an extraordinary case illustrating this view, that of a doctor, who had a very unusual growth of hair on the abdomen. He suffered from renal stone, and had acute pain in "Head's area" on one side. At the seat of maximal pain there was an area of quite smooth skin forming a sort of island in a forest of hair. So that here there was loss of hair from a well-ascertained cause. Personally, he did not hold the view that alopecia was contagious; he always allowed children patients with this condition to continue at school.

Dr. S. E. Dore (in reply) said that it was generally agreed that Alopecia areata of the ordinary type was not contagious. It was possible that some of the epidemics which had been described had been due to impetigo or to ringworm in which the fungus had died out. Colcott Fox recorded an epidemic in which no ringworm fungus was present.

Dr. E. G. Graham Little showed a case of *rodent ulcer treated by radium*. The patient was a man aged 50 years. He was treated for over a year with radium, and at first there was considerable improvement, then suddenly the whole condition broke down and extended. The skin was eroded over an area extending from the right ear to the middle of the cheek, the pinna was adherent only by a small isthmus of tissue, the auditory meatus was deeply excavated by ulceration; the parotid gland and facial nerve had disappeared facial paralysis being well marked. Ulceration extended to the margin of the orbit, but did not affect the eyelids. He had brought

the case with the idea that arsenical paste might be useful; he had not tried this personally, but had seen it have a most excellent effect in a case he saw some years ago.

The CHAIRMAN said that the treatment by erasion and arsenical paste seemed to him to be alone suitable in such an advanced case.

Dr. GRAY said that this case appeared to be very suitable for the use of arsenical paste. It was not much good to use the paste in cases where the nasal cavities were involved, but where the disease was limited to a smooth area of skin the results, in his experience, were very favourable. It was essential first to remove as much as possible of the growth with the curette, under an anæsthetic, and when the bleeding had been stopped by pressure, the paste was applied to the surface. The paste he now used, which Dr. Norman Walker recommended, was composed of anhydrous arsenious acid, one part; sulphide of mercury, five parts; animal charcoal, one part. The paste was made immediately before use by adding a little methylated spirit, and was applied with the handle of a scalpel, or something of the kind. If bone was exposed it would eventually come away as a sequestrum, and if the area was large might take a long time to separate. As soon as the original slough separated from the soft parts he generally applied Thiersch grafts with the object of reducing the granulating area as much as possible. The most troublesome spot was the outer angle of the orbit, as the growth might spread along the periosteum into the orbit, where it was very difficult to deal with. Where the growth was approaching this margin, it was a good plan to cut down on to the orbital margin and peel off the periosteum backwards and apply the paste to the bone direct. He gave a dose of morphia before these patients came round from the anæsthetic, and had found that they suffered comparatively little pain; in fact, this was often considerably less than the intense neuralgia from which many of them suffered before the operation.

Dr. E. G. GRAHAM LITTLE showed a case of *linear Lichen planus*. The patient was a boy aged 12 years. There was a typical eruption of Lichen planus, extending in a sharply demarcated line from $\frac{1}{4}$ in. to $\frac{1}{2}$ in. wide, stretching from the middle of the left buttock along the thigh and leg and passing behind the internal malleolus to terminate at the inner edge of the foot. Just below the buttock the line broadened out into a less well-defined patch, which continued in the direction of the line, which was resumed again about the middle of the thigh. There were no lesions elsewhere. The case was exactly similar to that of a little girl shown by him and reported in the *British Journal of Dermatology and Syphilis*, 1917, p. 220. The duration of the disease was also much the same—that was, about three months.

The CHAIRMAN (Dr. J. H. Stowers) said he had had a precisely similar case under his own care, and the lesion disappeared spontaneously in a period of about two years.

Dr. S. E. Dore showed a *case for diagnosis*. The patient, a girl, aged 13 years, had had a persistent symmetrical excoriation of the toes and dorsal and plantar surfaces of the feet for five months. No treatment had been of any avail. He had failed to find any ringworm fungus,* and bacteriological examination only revealed the presence of staphylococci. "Artefact" and tuberculosis could, he thought, be excluded, and it did not seem to possess the characters of "Dermatitis repens," which had been suggested as the diagnosis.

Dr. Gray said the edge should be carefully examined for the epidermophyton. He had seen a groin ringworm in which the intensity of the inflammation was as marked as in the present one, and he was also convinced that lesions starting between the toes were quite as common as those in the groin.

Dr. Graham Little said that this case was probably one of ringworm, and he suggested Dr. Dore should give it a rest from treatment for a week or two, then examine for the fungus. Sometimes its discovery was rendered impossible by treatment. The extent of the excoriation was not sufficient to negative that diagnosis, nor was the age; he saw a similar condition in a boy, aged 12 years, with ringworm of the toes from a school in which were thirty-three cases on the feet only. Nor did the sex discount this opinion; while comparatively uncommon in females it was quite frequently met with among them.

The Chairman (Dr. J. H. Stowers) said that the symmetry was very remarkable, and the possibility of artefacta on the effect of remedies, as modifying appearances, should never be overlooked. This patient might be the subject of so-called "eczematoid ringworm" of the feet, but he never saw a case of this nature presenting the peculiar raised vascular patches with abrupt edges such as were seen here.

Dr. S. E. Dore showed a *case for diagnosis*. The patient, a girl, aged 7 years, had symmetrical, scaly, slightly red patches on both cheeks, which had been present for five years, and had not yielded to any treatment. At first sight they resembled a seborrhœic dermatitis, but the chronicity, the marked accentuation of the natural furrows, producing the appearance of wrinkles, and the freckling and slight alteration in the texture of the skin, seemed to negative this diagnosis. Dr. Pernet suggested that it might be an early stage of a condition described by him under the name of "Atrophodermia reticulata faciei," and would probably end in atrophy. At present, however, there was no atrophy, and, although scales were present, they were not like the adherent crust of Lupus erythematosus, another diagnosis suggested. The condition had remained stationary and comparatively free from inflammation under treatment by soothing astringent lotions such as

* Subsequent examination of scales showed ringworm fungus.

lead and calamine, but any attempt to use resolvents such as sulphur or salicylic acid or tar was immediately followed by erythema and a tendency to spread.

Dr. Graham Little thought it was too persistent for an "Impetigo pityrodes." It was on the flush area of the cheek, and partly for this reason he regarded it as an early Lupus erythematosus. There were many cases which lasted a long time without spreading.

Meeting held on March 21st, 1918, Sir James Galloway, President of the Section, in the Chair.

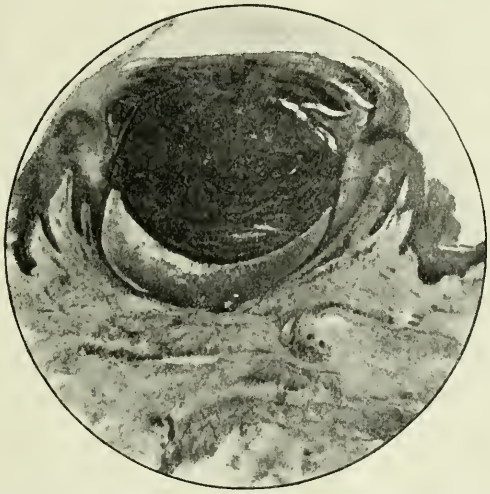
Dr. George Pernet showed a case of *Prurigo diathésique de Besnier*. The patient was a married woman, aged 32 years, a Belgian refugee from Antwerp. The duration of the disease was ten years. It had been aggravated by her last pregnancy, six years previously, and also by her war experiences four years ago. The rash was generalised, but involved the arms and legs more especially, and chiefly the latter. The picture was that of Willan and Hebra's prurigo, but that began in early childhood, whereas in this case the disease commenced at the age of 22, and might be called an acquired prurigo: he had preferred to give it Besnier's name. There was very little inguinal and femoral adenitis, although the condition was of long standing. She was well nourished, and, apart from the skin condition, was healthy generally. Urine normal. There was intense pruritus, which interfered greatly with her rest. Treatment was made somewhat more difficult by reason of pregnancy, and had not done much good. From puberty the catamenia had occurred only every three or four months, and there were exacerbations of the pruritus at the time menstruation should occur in the amenorrhœic periods. He had seen several cases of this type beginning in adult life, and they were very refractory to treatment, but he had found thyroid extract, employed quite empirically, do some good. The X-rays had also occasionally been useful.

The President remarked that a point for discussion was the influence of pregnancy on the whole of this type of eruption. They all knew there was one very marked type of erythematous, congestive, destructive lesion of the skin which was closely associated with pregnancy—namely, what used to be called Hydroa gestationis. They must all have seen degrees of that, even such mild degrees that one could hardly recognise it was a true pemphigoid condition; simply erythematous and papular, but nearly always pruritic. The question arose whether in such cases, with a history of amenorrhœa and exacerbations

during pregnancy, pregnancy and its consequences might produce this type of lesion in addition to the one which they recognised as Hydroa gestationis. Very little good could be done by treating such a patient as an ordinary out-patient; benefit could only result by having her under control.

Dr. F. Parkes Weber and Dr. P. W. Dove described a case of *pruritus in Hodgkin's disease—Lymphogranulomatosis prurigínosa.* An account of this case was published in the *British Journal of Dermatology and Syphilis*, London, 1918, xxx, pp. 15–22.

Dr. W. Knowsley Sibley showed a case *for diagnosis.* The patient was a man, aged 21 years, a hairdresser by occupation, whose



Section through centre of a papule from thigh. $\frac{2}{3}$ obj.

mentality was distinctly below the normal, and was very nervous. Both parents were living and well, and the patient stated that a brother, two years older than he was, suffered from rheumatism, and had a rash somewhat similar to his own on his forearms.

The patient said he had never been strong, and had suffered from pains in his hands and feet for some years, but he had never had rheumatic fever. He had scarlet fever in September, 1914, and was in hospital for eleven weeks. The eruption on his body had been present for some six years; it did not irritate, and consisted of slightly raised minute dots, like hæmorrhagic punctæ, scattered over the abdomen, especially abundant over the scrotum and base of the

penis, and over the dorsal and lumbar region, chiefly over the neighbourhood of the spinal processes. A few were scattered over the extremities, and were present on the tips of some of the fingers. Many had the appearances of minute nævi—"tache de Morgan." They were also seen on the buccal mucosa, especially that of the lower lip. The lesions on the scrotum were larger than in other parts, and were more like a nævoid condition. In this region the appearances varied from time to time, and became much less conspicuous after rest in bed. Those on the abdomen and back were all regular in outline, slightly raised minute dots. Those on the finger-

tips were very similar in appearance to the angiomatous stage of angiokeratoma in this position. The whole skin of the thorax and abdomen was decidedly pigmented. In parts, especially about the umbilicus, the condition had become dry and scaly, and here the red dots were easily removed by scraping. Many of the spots did not disappear on pressure, others did. All the joints of the fingers were enlarged and painful, so also was the temporo-maxillary articulation, and patient was able to open his mouth only a little way. The lymphatic glands in the axillæ, groins, etc., were slightly enlarged, and hard and shotty to the touch. No enlargement of the liver or spleen could be felt. The second aortic cardiac sound was accentuated.

Bruits were not present. Albumin was present in the urine, which had a very low specific gravity (1004), and the deposit contained squamous epithelial cells, fat cells, lymphocytes and phosphate crystals. No casts nor pus-cells were present. The differential blood-count showed an increase in the mononuclear cells and basophils, otherwise it was about normal. An absence of blood platelets was noted. Polymorphonuclears, 69 per cent.; mononuclears, 10·25 per cent.; small lymphocytes, 16 per cent.; eosinophils, 0·75 per cent.; basophils, 3·25 per cent.; transitional cells, 0·75 per cent.

Dr. F. Parkes Weber regarded this case as a typical one of multiple hæmorrhagic telangiectases (angiomata) of the skin and mucous membranes. The paper which introduced this clinical group of cases most strikingly to the British profession was Sir William Osler's,* and not long afterwards he wrote on the subject himself. Dr. Sibley had omitted an important point, which he ascertained—namely, that this patient's brother, who was two years older, had the same affection. The patient had had no bleeding from the mucous membranes, but he had little doubt that later on it would occur: he might have epistaxis, and bleeding from the tiny spots on the gums. Some of the most typical of the minute telangiectases, or angiomata, were on the finger-tips. Some of these cases had renal trouble associated. What was the brachial systolic blood-pressure in this case? He thought the Wassermann reaction ought to be taken.

Dr. Adamson did not remember having seen anything quite like this case. The three conditions to compare it with were: Multiple telangiectases, certain unilateral nævi, and angiokeratoma. The late Dr. Fox and he had shown cases of unilateral nævi in which similar lesions occupied one area, one side of the chest, and in his case one arm. He did not agree with Dr. Parkes Weber that it was multiple telangiectases, because in that condition there were little tufts or dilated vessels. The affection was something like angiokeratoma, which occurred on the extremities. On looking at Dr. Sibley's microscopical section he did not agree that a hair follicle was involved; but the whole of the hæmorrhage was inside the epidermis; the horny layer was above it, and epidermis went right down to the bottom. It was difficult to know how the hæmorrhage got there. The lesion, to him at all events, seemed to be a unique one.†

Dr. Gray agreed with Dr. Adamson. There was no trace of a hair follicle in the region of the hæmorrhage. It would be very interesting to find out how the blood got between the layers of the epidermis. He thought a dilatation of a papillary vessel had occurred at the tip of the papilla and had burst fanwise into the epidermis on either side. In the specimen they had a lateral section of the hæmorrhage, and if serial sections were cut they might trace where it came

* *Quart. Journ. Med.*, Oxford, 1907–8, i, pp. 53–58 (two coloured plates).

† A reference to the literature of angiokeratoma has since convinced Dr. Adamson that Dr. Sibley's case is an example of the aberrant type of angiokeratoma, in which the lesions occur upon the trunk and scrotum, and he refers more fully to this point in an article on p. 85 of this number. (Ed.).

from. The lesions did not disappear on pressure, and he therefore thought they were purpuric.

Dr. S. E. Dore did not regard this as a case of multiple telangiectases; in that condition there were dilated vessels which disappeared on pressure, and in this case there appeared to be definite hæmorrhagic points. The lesions were too widely distributed for angiokeratoma, and there was no keratoma. The punctæ resemble the "cayenne-pepper grains" in "infective" nævus, but they were said to disappear from time to time, whereas infective nævus generally spread, and did not, as a rule, clear up. A purpuric eruption in a patient who had renal disease suggested a connection between the two affections, and he thought this was probably a case of purpura in association with renal disease.

The President said that Dr. Adamson had given them the differential diagnosis, and what he said almost completely covered the ground concerning the different possibilities. They had to be sure whether this was extravasation or hæmorrhage, or whether there was any evident telangiectasis, or not. Speaking from the patient's appearance, he thought it was purpuric, without definite localised telangiectatic condition such as they saw in the familial group of cases of which Dr. Parkes Weber reminded them. If this was familial, it was a very strong point in favour of the type of punctiform telangiectasis of which most of them had had opportunities of seeing cases. There was a full-page picture in the Clinical Society's *Transactions* of a case he had at Charing Cross Hospital, and he had had opportunities of observing several. The spider-like telangiectatic condition, which had been going on for years, was one of the most striking features of the diagnosis. And that scarcely existed—certainly not to any marked extent—in this case. It remained with Dr. Sibley, partly by clinical examination and partly by more extensive histological examination, to tell them whether it was a definitely hæmorrhagic condition of the purpuric type. Failing that, there was the long-standing albuminuric condition, and the boy's obvious failure of health. He thought the alternative diagnoses which lay before them were diathetic hæmorrhagic purpura on the one hand, and, on the other hand, a slight case—for one could not call it an early case—of multiple telangiectases.

Dr. H. G. Adamson showed a case of *? tumour of the parotids involving the skin.* The patient, a middle-aged man, had had a swelling on either side of the face since last Christmas. It came first on the left side, then on the right. It seemed to occupy the parotids and the submaxillary gland on the right side, and to extend, so that it involved the skin and subcutaneous tissue to the nasolabial fold and the eyelids, and a part of the forehead. He had an injury below the right eye, and there was a "lump" there for two and a half years. Apparently the other swelling had only come since Christmas. He cut a piece out of the skin margin of the nasolabial fold, and it showed infiltration of the lymphatic spaces with epithelial cells. He had taken a piece from the parotid gland, but had not had an opportunity

of examining that. When he first came to the hospital it struck him it might be some form of Mikulicz's disease, but further investigation showed that this was not so. His Wassermann was negative, and the blood-count normal.

There seemed to be no doubt that it was a malignant epithelioma of some sort. What he did not understand was how it started, and why it should affect both parotids. It was reasonable to suppose he had an epithelioma from the wound in the cheek, but he did not know how the parotids had become involved. If it was a primary parotid new growth, it was curious that it should start almost simultaneously in both parotids and in the submaxillary gland. There were cases described of carcinoma of one parotid, involving the skin secondarily.

With regard to treatment, he supposed there was nothing to be done.

Dr. EDDOWES asked whether it was possible that this might be a case of so-called "hard œdema." He had only seen one such case in the whole of his medical experience, and that occurred in a leg after fracture of the bones. The œdema lasted many months, and then slowly disappeared.

Dr. GRAY said the section of this case showed exactly the appearance of a cuirass cancer—*i. e.* dilated lymphatic vessels blocked with epithelial cells—and the clinical characters also showed the same. As to the condition being on both sides of the face, probably this was due to its arising from a common focus, which was not in the face. Most cuirass cancers were secondary to a deep-seated growth, and they generally appeared on both sides of the middle line. There might be some such growth not yet determined in this case. This was certainly not a case of the ordinary parotid endothelioma of the mixed celled type, and he was not familiar with epithelioma of the parotid, though it probably occurred. With regard to the type of cell which one saw in these dilated lymph spaces, he did not think one could tell in what organ the primary growth was situated. He had seen secondary deposits in the skin from tumours in the abdomen and in the breast, some of them columnar carcinoma primarily, others of scirrhus type, and yet the cells in the lymphatic spaces seemed to be of the same amorphous character. He did not think he had seen this type of secondary skin tumour arising from a primary skin tumour, therefore he did not know whether one got typical prickle cell groups.

The PRESIDENT said this was an unusual condition. He agreed with Dr. Gray that a growth secondary to a primary skin growth was almost unimaginable. If it was of the nature of a cuirass-spreading growth, it had almost certainly started from some non-epiblastic structure, so far as the upper epiblast was concerned, for one must consider the breast as epiblastic—he meant epithelial in the true sense of the word. The diagnosis here must depend on a thorough microscopical examination and watching of the case. He had hoped, when he saw the patient, it might be a fibro-chondromatous mass, but the microscope put that quite out of account, as well as symmetrical lymphangitis which Dr. Eddowes suggested.

Dr. A. Eddowes showed a case of *Lupus erythematosus of unusual distribution and character.* He saw this patient, a woman, yesterday evening for the first time, and at first he was only shown the lesions on her feet, which looked like a very superficial Lupus vulgaris. But on inquiry he found there were lesions on both upper arms, and when he pinched the skin he found distinct atrophy, but the epidermis appeared to be fairly normal on the surface. Symmetrically on the right side was a patch which was at present erythematous, without atrophy. And he noticed that a portion of the pinna was destroyed; by a chilblain, she said. It was that which led him to diagnose the condition as Lupus erythematosus. Of the different lesions the erythema seems to be the essential feature, the gradual necrosis and the epithelial changes being secondary. The atrophy could take place without obvious disturbance of the superincumbent epithelium. Over the centre of the face the skin was rather waxy-looking, without any obvious affection being present. Pressure failed to reveal the presence of "apple jelly" nodules in any of the lesions.

Dr. J. H. Stowers agreed with Dr. Eddowes as to the nature of the affection of the ears, but he was not so satisfied as to the more extensive lesions. They had characters suggestive of dermato-syphilis, and a Wassermann test was necessary to exclude this possibility.

The President called attention to the foveated nature of the scar. The lesion on the arm, he suggested, was a vaccination mark. The scar was evidently composed of some general atrophy, but there was a more distinct atrophy of the skin in more or less rounded patches. That was not common in the ordinary type of Lupus erythematosus, whereas the foveated scar was much more likely to occur in superficial atrophy of skin due to syphilitic infection. The diagnosis, so far, was not clear.

CURRENT LITERATURE.

FUNGOUS AFFECTIONS.

RINGWORM AND ALLIED PARASITIC SKIN DISEASES IN AUSTRALIA. Henry Priestley, M.D. (*Medical Journal of Australia*, December 8th, 1917, p. 471.)

Considerable attention has recently been paid to the ringworm fungi found in Australia. Dr. Norman Paul reported on thirty-four cases of ringworm of the scalp in Sydney in 1916. Dr. Priestley, of the Australian Institute of Tropical Medicine, Townsville, in a paper recently published, reports fifteen cases due to *Trichophyton sulfureum*, two cases of body ringworm due to *Microsporon scorteum*, and two cases of interdigital ringworm, and one case of onchomycosis.

He describes a new species, *Trichophyton rubidum*, isolated from the skin of a soldier returned from Rabaul. The patient had an extensive erythro-squamous eruption over both buttocks, groin, lumbar region, and the side of the neck. Pustules were present in parts and the parasite was abundant in the skin squames. The growth on glucose agar was creamy white with a short duvet or down, and the medium under and around the colony was of a deep port-wine colour. On Sabouraud's maltose agar the growth had the same appearance but there was no discoloration, the central part of the colony being citron-coloured. Pleomorphic degeneration appeared early, and was of the type usually found among the trichophytons.

Trichophyton interdigitale, a new species, was isolated from three cases, in one instance from a scaly eruption in the groin. The hairs were unaffected. On Sabouraud's medium the growth in seventeen days was 5 cm. in diameter. There was a small central boss obscured by duvet. The rest of the culture was covered with a well-marked duvet, particularly at the periphery. The central part of the culture was pale buff-coloured, the surrounding parts white, and the agar was not discoloured. Pleomorphic degeneration appeared early. Attempts to infect animals by both fungi were unsuccessful.

[As the hairs were unaffected the fungus called *T. interdigitali* would probably be better classed as an Epidermophyton.—J. H. S.]

The case of onychomycosis of the great toe showed a fungus recognised as *Trichophyton griseum* (Vasconcellos). This organism has been described as appearing in Brazil, and is characterised by the peculiar concentric arrangement of its cultures.

The *Epidermophyton cruris* (*inguinale*) was found in several cases of groin ringworm. J. H. S.

RINGWORM EPIDEMIC PRESENTING A NEW TYPE OF FUNGUS.

C. Norman Paul, M.B. (*Medical Journal of Australia*, December 15th, 1917, p. 496.)

Dr. Norman Paul states that there passed over certain districts of New South Wales a plague of mice, which produced great destruction and devastation. Their food supplies were drawn from huge stocks of wheat, accumulated owing to the lack of freight. As a result, some of the wheat had to be rebagged and shifted, and many of those handling it became infected with a cutaneous eruption found to be a ringworm. There was ample evidence that the mice were the cause of the disease, for many were seen with patches almost denuded of hair. The eruption on the persons infected appeared mostly on the exposed parts, and on the hairy region of the face numerous and extensive areas of pustulation—multiple kerion—presented themselves. The period of incubation appeared to be somewhat prolonged, the first appearance resembling goose-skin without any redness. This was followed by erythema, which spread in a circinate form. The patients complained of nocturnal itching. The patches were rounded, sharply circumscribed, erythematous areas, upon which were scattered discrete vesicles, vesico-pustules, and pustules. The more advanced patches resembled chronic eczema, the vesicles and papules having disappeared except at the periphery. The surface exhibited a dry, scaly roughness. Cultures grew remarkably easily, and on the eighth day a slightly raised, central knob and a purple lake colour

characterised the growth throughout. On the ninth or tenth day a creamy-white powder commenced to appear on the surface spreading from the centre. On the fourteenth day a sub-culture measured 4 cm. across. Pleomorphism was recognised. The rapidity of development, the powdery or chalky mantle on proof media, and the early pleomorphism place the organism in the Gypseum group. Dr. Norman Paul looks upon the fungus as a new variety, and has named it, from its presence in mice, *Trichophyton rodens*. J. H. S.

DERMATO-MYCOSIS IN MICE AND MEN. Herman Lawrence, M.R.C.P.Edin., Melbourne. (*Medical Journal of Australia*, February 23rd, 1918, p. 146, figure.)

Dr. Herman Lawrence shows by inoculation experiments on mice and guinea-pigs that the period of incubation in the epidemic disease referred to in Dr. Norman Paul's article is about seven days. Dr. Lawrence is not satisfied that the fungus is a new species. He points out—

(1) That the disease in mice is singularly suggestive of favus. Portions of the growth from a mouse examined in liq. potassæ showed branching, jointed, mycelial threads with terminal spores resembling the condition known as favic tarsus.

(2) That the affection is fatal for mice which nibble the fungus growths off each other.

(3) That his cultures obtained by Kral's method of dusting 2 per cent. beef peptone on the powdered growth are white growths with definite folds. This condition is well illustrated in the reproduction of a photograph.

He suggests that the fungus is most probably the *Achorion* (*Oidium*) *quinckeanum*, but reserves final judgment until further observations have been made.

J. H. S.

[The photograph of Dr. Paul's culture is certainly different and exactly resembles that of *Trichophyton gypseum*, and the picture of Dr. Lawrence's patient's wrist is not like that of lesions produced by the *A. quinckeanum* seen in England.—J. H. S.]

PATHOLOGY.

CAUSATION OF ECZEMA, URTICARIA, AND ANGIONEUROTIC ŒDEMA. Chandler Walker. (*Journ. Amer. Med. Assoc.*, 1918, lxx, p. 897.)

In this paper the writer records a number of instances in which eczema, urticaria, and angioneurotic œdema were caused by proteins which are not foods but with which the persons came intimately in contact throughout life. Four cases of eczema are recorded, in which 2 were caused by the protein of horse dandruff, 1 by the pollen of rag-weed and 1 by the pollen of timothy; 5 cases of urticaria, 2 of which were caused by horse dandruff proteins and 3 by rag-weed pollen; and 3 cases of angioneurotic œdema, caused respectively by timothy pollen, flax-seed, and rag-weed pollen. With the exception of one patient, who had hay-fever, all of them had bronchial asthma, and the asthma was caused by the same proteins which caused the skin affection.

He found that eczematous patients tolerated very small doses of the offending protein, but a slight increase above this small amount made the eczema worse.

The amount of protein which benefited the eczema was too small to prevent the asthma, and the amount of protein which benefited the asthma made the eczema worse. It was found that small subcutaneous injections of the proteins of horse dandruff and rag-weed pollen cured urticaria in some cases; consequently, in determining the cause of urticaria, it was necessary to exclude all protein substances with which the patient might have come in contact as well as food proteins. J. M. H. M.

THE ÆTIOLOGY OF GRANULOMA INGUINALE. E. L. Walker. Boston, U.S.A. (Plate.) (*The Journal of Medical Research*, January, 1918. xxxvii, No. 3, p. 427.)

Summary.—(1) The essential ætiological factor of granuloma inguinale is the intracellular organism discovered by Donovan (1905) and found constantly in the lesions.

(2) This intracellular organism is a capsule bacillus of the *B. mucosus capsulatus* Friedlander group.

(3) Granuloma inguinale is not itself a venereal disease, but it is probably a secondary infection with the capsule bacillus of lesions of other origin, which may be venereal sores. H. G. A.

KERATOSES.

ON A NEW FORM OF PUNCTIFORM KERATODERMIA. Shin-Ichi Matsumoto (*Journ. Cut. Dis.*, 1918, xxxvi, p. 280.)

The patient was a girl, aged 19 years, who presented on the palmar surface of the hands and fingers, at the flexures of the joints, numerous punctiform horny efflorescences of a yellowish or brownish hue, and varying in size from a pin-point to a poppy-seed. On the backs of the first and third interdigital spaces of both hands similar lesions were present, which, like those on the palms, were symmetrical in distribution. The eruption appeared in early childhood, but no hereditary taint was ascertainable. There were no subjective symptoms.

J. M. H. M.

SYPHILIS.

TWO FATAL CASES OF ICTERUS GRAVIS FOLLOWING INJECTIONS OF NOVARSENOBILLON. Lieut.-Col. C. B. Fenwick, Capt. G. P. Sweet, and Capt E. C. Lowe. (*Brit. Med Journ.*, April 20th, 1918, p. 448.)

The two cases resembled one another very closely in their history, clinical manifestations and morbid anatomy. After receiving five doses of novarsenobillon, followed by an interval of seven and fourteen hours respectively, they became jaundiced At first the symptoms were mild, but the jaundice gradually deepened, the liver became greatly reduced in size, persistent vomiting occurred, and the patients died twenty one and forty hours respectively after the onset of symptoms. Autopsy showed an acute cirrhosis of the liver. Both were cases of primary syphilis, and showed no secondary manifestations. Case No. 1 gave a negative Wassermann reaction at the conclusion of treatment, but Case No. 2

gave a double positive reaction on the last occasion on which it was taken. That the cirrhotic condition of the liver was due to syphilis appeared to be almost out of the question, and Major Andrewes reported that the clinical symptoms did not accurately correspond with those of acute yellow atrophy of the liver, the appearances of the organ to the naked eye and microscopically being quite unlike anything found in that disease.

These two conditions being excluded, the question naturally arose whether chronic arsenical poisoning was the cause of the fatalities. Inquiries were therefore made with a view of ascertaining whether any similar cases had occurred at the N.Z.V.D. Section or elsewhere. It was stated that in this Section 263 cases of syphilis had been treated with novarsenobillon, and the two reported were the only ones followed by jaundice. At the 1st Western General Hospital the Officer in Charge stated that he had not met a single case of jaundice following the treatment of syphilis by salvarsan and kharsivan. Lieut.-Col. Harrison, of Rochester Row Hospital, states that jaundice occurs in 0·6 per cent. of cases during the treatment of syphilis with arsenical compounds, the symptom sometimes lasting four or five months. In neither of the cases reported above was arsenic detected in the urine. S. E. D.

TITRATION OF COMPLEMENT FOR ITS POWER TO COMBINE IN THE SYPHILITIC SYSTEM. A. W. Stillians. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 289.)

In order to increase the stability of the Wassermann tests a standard positive control has been evolved which gives an accurate gauge of strength of reaction. A number of strong positive serums are preserved by the method of Reudiger by adding an equal amount of glycerine. These are then mixed and the mixture titrated as a positive control with each set of tests.

According to the writer, (1) the use of a mixture of glycerinised strong positive serums titrated with each set of Wassermann tests as a positive control gives an accurate idea of the strength of the reaction; (2) titration of complement against the combination of antigen with a fraction of the titer (that is, the smallest amount giving complement fixation of complement) of this positive control gives valuable information as to the combining power of complement in the syphilitic system; (3) by the use of this method of titration variations in strength in the Wassermann reaction can be minimised; (4) old complement is apt to lose its power to combine in the syphilitic system before its hæmolytic value fails; such variations are detected and estimated by the new method of titration.

J. M. H. M.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

Acne Cachecticorum in the Present War. L. Merks. (*Derm. Wochenschr.*, December 1st, 1917, No. 48, Bd. lxv, p. 1064; February 16th, 1918, No. 7, Bd. lxvi, p. 97.

Acuminate Papules in Acute Lichen Planus, An Eruption of. D. N. Montgomery and G. D. Culver. (*Journ. of Cut. Dis.*, April, 1918, xxxvi, p. 203.)

Anonychia, Case of Partial Hereditary. FRANK CHARTERIS. (*Glasgow Med. Journ.*, April, 1918, p. 207.)

Darier's Disease (Keratosis Follicularis), Report of a Case of, giving the Results from Roentgen-ray Treatment with the Coolidge Tube. A. SCHALCK. (*Journ. of Cut. Dis.*, February, 1918, xxxvi, p. 104.)

Eczema due to Deficient Thyroid Secretion. M. H. EDELMAN. (*New York Med. Journ.*, March 9th, 1918, p. 450.)

Eczema, Urticaria and Angioneurotic Œdema by Proteins other than those derived from Food, Causation of. I. CHANDLER WALKER. (*Journ. Amer. Med. Assoc.*, March 30th, 1918, vol. lxx, p. 897.)

Hæmatidrosis, A Case of. CHARLES T. SCOTT. (*Brit. Med. Journ.*, May 11th, 1918, p. 532.)

Herpes Zoster and Chickenpox. B. GOLDBERG and F. D. FRANCIS. (*Journ. Amer. Med. Assoc.*, April 13th, 1918, vol. lxx, p. 1061.)

Lupus Erythematosus Discoides, The Relation of, to Tuberculous Infection. R. S. WEISS and J. J. SINGER. (*Amer. Journ. Med. Sci.*, April, 1918, clv, p. 528.)

Petrol Dermatitis. G. B. PAGE. (*Practitioner*, May, 1918, p. 451.)

Purpuric Forms of Meningococcæmia, The. D. BLANCHIER. (*Thèse de Paris*, 1918, *Vigot frères.*)

Rhus Dermatitis. I. TOYAMA (Japan). (*Journ. of Cut. Dis.*, March, 1918, xxxvi, p. 157.)

Schamberg's Progressive Pigmentary Dermatosis. (With histological study and photographs). LYLE B. KINGERY. (*Journ. of Cut. Dis.*, March, 1918. xxxvi, p. 166.)

Scleroderma Diffusa in a Girl, aged 9 years. HERMAN GOODMAN. (*Journ. of Cut. Dis.*, April, 1918, xxxvi, p. 210.)

Sclerosis en Plaques in a Child, aged 15 years. P. GAUTIER and C. SALOZ (bibliography). (*Arch. de Méd. des Enfants*, April, 1918, xxi, p. 199.)

Skin and Throat Manifestations of Heine-Medin's Disease (Poliomyelitis). J. G. REGAN. (*Arch. of Ped.*, December, 1917, xxxiv, No. 12, p. 884.)

Strophulus. D. W. MONTGOMERY. (*Arch. of Ped.*, December, 1917, xxxiv, No. 12, p. 910.)

HYPERKERATOSIS.

Gonorrhœal Keratosis. W. H. BROWN. (*Journ. of Cut. Dis.*, April, 1918, xxxvi, p. 225.)

Porokeratosis associated with Onychauxis and Rheumatic Fever. CHARLES E. STEWART. (*Urologic and Cutaneous Review*, May, 1918, p. 268.)

Syphilitic Keratoderma. H. W. BAKER. (*Journ. of Cut. Dis.*, April, 1918, xxxvi, p. 220.)

GRANULOMATA.

Anthrax in Man, with a Report of Two Cases. Lt.-Col. C. H. GILMOUR and Capt. A. R. CAMPBELL. (*Canad. Med. Assoc. Journ.*, February, 1918. p. 97.)

Bone Changes in Leprosy. J. A. HONEIJ. (*Amer. Journ. of Roentgenology*, October, 1917, p. 494.)

Cutaneous Leishmaniosis, A Case of. HEUYER and CORNER. (*Bul'. de la Soc. Path. Exotique*, February 13th, 1918, xi, No. 2, p. 57.)

Cutaneous Leishmaniosis, A Case of. LEFAS and PARASKEVOPOULOS. (*Bull. de la Soc. Path. Exotique*, February 13th, 1918, xi, No. 2, p 59.)

Cutaneous Spirochætosis produced by Rat-bite in Bombay. (Photographs and photomicrographs; text in English). R ROW. (*Bul'. de la Soc. Path. Exotique*, March 13th, 1918, xi, No. 3, p. 188.)

Leishmaniosis, Cutaneous, Treatment of, with Intravenous Injections of Tartar-emetic. J. A. SINTON (*Ind. Med. Gaz.*, July, 1917, lii, No. 7, p. 239.)

Leprosy, Early Diagnosis of. C. P. PALK and R. BRYSON. (*Ind. Med. Gaz.*, September, 1917, lii, No. 9, p. 316.)

Leprosy, Intramuscular Injections of Sodium Gynocardate in. P. M. C. PEACOCK. (*Indian Med. Gaz.*, March, 1918, liii, No. 3, p. 95.)

Sporotrichosis, with Account of a Case. WALLACE BEATTY. (*Du'lin Journ. of Med. Sci.*, March, 1918, p. 129.)

Ulcerating Granuloma of the Pudenda. VICENTE PARDO (Havana). (*Journ. of Cut. Dis.*, April, 1918, xxxvi, p. 206.)

NEW GROWTHS.

Cancer, The Treatment of Cutaneous. GEO. M. MACKEE. (*Journ. of Cut. Dis.*, February, 1918, xxxvi, p. 92.)

Cancer, The Ætiology and Pathology of Skin. F. GILLETTE HARRIS. (*Journ. of Cut. Dis.*, February, 1918, xxxvi, p. 67.)

Cancer of the Lip by Radium, Treatment of. A Report of Twenty-four Cases. H. H JANEWAY. (*Journ. Amer. Med. Assoc.*, April 13th, 1918, vol. lxx, p. 1051.)

Nodular Growth of the Ear, Painful. O. H. FOERSTER. (*Journ. of Cut. Dis.*, March, 1918, xxxvi, p. 154.)

FUNGUS INFECTIONS.

Endomyces Albicans, as a Cause of Epidermomycosis Inguinalis. MUIJS (Amsterdam). (*Derm. Wochenschr.*, February 2nd, 1918, Bd. lxvi, No. 5, p. 65.)

Ringworm of the Scalp, by the Method of Cross-fire on the Surface or the Method of Five Applications, Treatment of. J. GOUIN. (*Journ. de Radiologie*, September–October, 1917, vol. ii, No. 11, p. 648.)

Tinea Imbricata in South Africa. A. PIJPER. (*Journ. of Trop. Med. and Hyg.*, March 1st, 1918, xxi, No. 5, p. 45.)

ANIMAL PARASITES.

Head- and Body-Lice, and upon Temperature Reactions of Lice and Mosquitoes, Notes on. F. M. HOWLETT. (*Parasitology*, November, 1917, vol. x, No. 1, p. 186.)

Louse, Destruction of Nits of the Clothes, by Solutions of Cresol-soap Emulsion and Lysol. A. W. BACOT and L. LLOYD. (*Brit. Med. Journ.*, April 27th, 1918, p. 479.)

Pediculus Humanus, The Biology of. G. H. F. NUTTALL. (*Parasitology*, November, 1917, vol. x, No. 1, p. 80.)

Pediculus Humanus in the Causation of Disease, The Part Played by. G. H. F. NUTTALL. (*Parasitology*, November, 1917, vol. x, No. 1, p. 43.)

Phthirius Pubis, The Biology of. G. H. F. NUTTALL. (*Parasitology*, April, 1918, vol. x, No. 3, p. 383.)

Phthirius Pubis, The Pathological Effects of. G. H. F. NUTTALL. (*Parasitology*, April, 1918, vol. x, No. 3, p. 375.)

SYPHILIS.

Acute Meningitis in Congenital Syphilis. HUTINEL. (*La Presse Médicale*, April 22nd, 1918, No. 23, p. 205.)

Alopecia Areata and Hérédo-syphilitics, The Facts Concerning. R. SABOURAUD. (*La Presse Médicale*, November 19th, 1917, No. 64, p. 659.)

Bordet-Wassermann Test during the Treatment of Syphilis, On the Modification in the Strength of the. H. K. DETWEILER. (*Canadian Med. Assoc. Journ.*, January, 1918, p. 25.)

Congenital Syphilis with Salvarsan, The Ante-natal Treatment of. LEONARD FINDLAY. (*Glasgow Med. Journ.*, February, 1918, p. 65.)

Dental Stigmata of Congenital Syphilis, The Significance of Certain (the "Mulberry Molar" or "Honey-combed Molar"). J. S. WALL. (*Arch. of Pediatics*, October, 1917, xxxiv, No. 10, p. 763.)

Gonorrhœa Complicated by Syphilis. M. P. L. LUMB. (*Brit. Med. Journ.*, March 9th, 1918, p. 285.)

Local Congestive Reaction in the Treatment of Syphilis by the Arsenic Compounds, The. LACAPÈRE. (*La Presse Médicale*, May 13th, 1918, No. 27, p. 247.)

Novarsenobillon, Two Fatal Cases of Tetanus Gravis following Injections of. P. C. FENWICK, G. B. SWEET, and E. C. LOWE. (*Brit. Med. Journ.*, April 20th, 1918, p. 448.)

Syphilis, The Problem of. FORREST M. HARRISON. (*Med. Record*, March 9th, 1918, p. 402.)

Syphilis, The Treatment of. T. P. C. KIRKPATRICK. (*Dublin Journ. Med. Sci.*, May 1st, 1918, p. 273.)

The Wassermann Reaction: Its Use and Abuse. HUGH W. BAYLY. (*Lancet*, May 4th, 1918, p. 632.)

"Tubercle of Carabelli," On the Signification of. E. JEANSELME. (*La Presse Médicale*, March 4th, 1918, No. 13, p. 116.)

Wassermann Complement Fixation Test for Syphilis, The. J. WHEELER SMITH. (*New York Med. Journ.*, March 16th, 1918, p. 489.)

Wassermann Reaction in the Newly Born, The Value of the. H. H. YERINGTON. (*Arch. of Ped.*, January, 1918, p. 40.)

Venereal Disease in the Civil Community, The Management of. L. W. HARRISON. (*Journ. of State Medicine*, April, 1918, xxvi, p. 97.)

TREATMENT.

Acne, The Treatment of, by the Roentgen Ray; Treatment of Epithelioma of the Lower Lip by Radium. RUSSEL H. BOGGS. (*Urologic and Cutaneous Review*, February, 1918, p. 68.)

Cicatrices, Treatment of Facial. A. POULARD. (*La Presse Médicale*, April 25th, 1918, No. 24, p. 221.)

Furunculosis, Abortive and Efficacious Treatment of. R. BURNIER. (*La Presse Médicale*, May 2nd, 1918, No. 25, p. 229.)

Furunculosis and other Deep-seated Coccogenic Infections, The Treatment of, by Collosol Manganese. Sir MALCOLM MORRIS. (*Brit. Med. Journ.*, April 20th, 1918, p. 446.)

Malignant Skin Lesions, Treatment of, with the X-ray. F. B. HALL. (*Urologic and Cutaneous Review*, February, 1918, p. 85.)

Personal Experience with the Kromayer Lamp. ALFRED SCHALEK. (*Urologic and Cutaneous Review*, May, 1918, p. 251.)

Psoriasis in the Army, Treatment of. H. W. BARBER. (*Brit. Med. Journ.*, March 30th, 1918, p. 369.)

Psoriasis: Its Routine and Radio-therapy. MEYER L. HEIDINGSFELD. (*Urol gic and Cutaneous Review*, May, 1918, p. 243.)

Radiotherapy, On. E. ALBERT WEIL. (*Paris Médical*, March 2nd, 1918, No. 9, p. 161.)

Radium and X-rays, The Present Status of the Local Application of. WALTER A. WEED. (*New York Med. Journ.*, March 16th, 1918, p. 495.)

Radium Therapy, A Contribution to the Study of Dosage in. J. C. MOTTRAM and S. RUSS. (*Arch. of Rad. and Electroth.*, March, 1918, No. 212, p. 309.)

Roentgen Therapy in Epithelioma. ALBERT F. TYLER. (*Urologic and Cutaneous Review*, February, 1918, p. 65.)

Radium Treatment in Diseases of the Skin. W. K. SIBLEY. (*Urologic and Cutaneous Review*, February, 1918, p. 90.)

Radium Treatment of Scars, with Clinical Notes on Military Orthopædic Cases. WALTER C. STEVENSON. (*Lancet*, March 23rd, 1918, p. 432.)

Skin-grafting in the Treatment of War Burns. C. P. G. WAKELEY. (*Lancet*, May 25th, 1918, p. 736.)

X-ray Treatment, Impressions of. W. G. HARVEY. (*Lancet*, April 13th, 1918, p. 536.)

X-ray Treatment, Some Impressions of the Value of. W. GEOFFREY HARVEY. (*Dublin Journ. of Med. Sci.*, April, 1918, p. 204.)

GENERAL.

Atrophy of Fat Cells in Derma and Subcutaneous Tissue, Localised Areas of. JOHN SUNDWALL. (*Journ. of Cut. Dis.*, March, 1918, xxxv, p. 146.)

Congenital Paramedian Sinuses of Lower Lip. (Illustrated). N. TOOMEY. (*Arch. of Ped.*, December, 1917, xxxiv, No. 12, p. 924.)

Cutaneous Disorders, Infection in. HUGH MACKAY. (*Journ. of Cut. Dis.*, March, 1918, xxxvi, p. 173.)

Dermatological Research and its Bearing on General Medicine, The Trend of Modern. MOSES SCHOLTZ. (*New York Med. Journ.*, April 27th, 1918, p. 775.)

Ductless Glands and Dermatology. W. P. CUNNINGHAM. (*New York Med. Journ.*, January, 19th, 1918, p. 97.)

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OF

DERMATOLOGY AND SYPHILIS.

JULY—SEPTEMBER, 1918.

PUNCTATE KERATOSIS OF THE PALMS OF THE HANDS AND SOLES OF THE FEET; TWO CASES OCCURRING IN COUSINS-GERMAN.

By Sir JAMES GALLOWAY, K.B.E., M.D., with Histological and Bibliographical Notes by Dr. H. G. ADAMSON.

(*Cases shown at a meeting of the Dermatological Section, Royal Society of Medicine, May 16th*, 1918.)

The following is a short note of this unusual condition, occurring in two patients, husband and wife, who have the blood relationship of first cousins-german.

Mrs. M—, aged 35 years, was brought to me on March 3rd, 1914. She is not a robust woman, and suffered some years ago from tetany following influenza. To keep this condition in check she has taken 30 gr. of bromide of ammonia daily for a long time. The tetany has now practically disappeared. She has a sluggish circulation, evidenced by a tendency to unusually cold or unusually warm hands and feet. She states that she has suffered from her girlhood or infancy from the present condition, affecting the palms and soles, but she cannot say when it was first noted.

On the palms of the hands (Fig. 1) large numbers of yellowish-brown, flattish nodules can be seen, in size from minute points to that of a millet-grain. They are disseminated over the whole palm to below the crease of the wrist; they are now stated to be spread along the finger clefts. These nodules seem to be papules of very firm,

horny epithelium; they are not vesicular. In process of time they tend to flatten, and at length become depressed below the surrounding surface. Many of them show definite pitting of their summits or centres. These nodules are stated to have recently increased in number, spreading along the fingers towards the finger clefts. A similar condition affects the soles of the feet.

The nodules themselves cause no pain. She is in the habit of removing, with the point of a pen-knife or similar instrument, those that become troublesome. The result is that the skin becomes roughened. The irregular epithelial surface incommodes her by being caught by her clothes and prevents her doing needlework. The inconvenience is at times almost intolerable.

Her husband, Dr. M—, suffers from a similar though less severe condition of the skin of the palms and soles, the nodules being less numerous and causing slight inconvenience.

In the case of Mrs. M— the use of salicylic acid in various forms to produce desquamation and smoothness of the surface has done good. Carefully measured application of X-rays has also been applied without benefit.

Dr. Adamson adds a short account of similar cases on record. A case has been described by Dr. Albert J. Chalmers.*

It is clear that certain of the small number of cases described as "punctate keratosis" are not of the same nature as the two cases described in this communication, nor do they agree with each other in their ætiology and external characters.

In these two cases the condition appears to be a family complaint.

Although the previously published cases have many features in common, it is doubtful whether they all belong to the same class.

A punctate keratosis on the palms and soles may occur in Lichen planus; in arsenical keratosis (Darier, Adamson); in syphilis (Brocq); in Psorospermosis vegetans of Darier (Darier, Emery, Gaston and Nicolau); in linear nævus (Dubreuilh); and in association with Verrucæ planæ. It is possible that some of the recorded cases of punctate keratosis of the palms and soles belong to one or other of these affections.

The following is a list of recorded cases of punctate keratosis. By

* *Journ. of Trop. Med. and Hyg.*, 1916, xxii, p. 21, a *précis* of which will be found in the *Brit. Journ. Derm.*, 1918, xxx, p. 48.

Fig. 1.— From a photograph of the palm of the left hand (Mrs. M—), showing the distribution and appearance of the nodules.

TO ILLUSTRATE SIR JAMES GALLOWAY'S PAPER ON PUNCTATE KERATOSIS OF THE PALMS OF THE HANDS AND SOLES OF THE FEET.

some observers these have been called porokeratosis, but as it is uncertain that the keratosis really involves the sweat-duct orifices, it is better perhaps to use the term "punctate keratosis" rather than "porokeratosis."

List of Published Cases.

(1) Besnier.—"Kératodermie erythémateuse symétrique des extrémités; forme ponctuée. Keratose localisée à l'ostium sudorifère. Paume de la main." In the Museum of the St. Louis Hospital is a Baretta model (No. 560, 1892), which Besnier has labelled.

(2) Hallopeau and Clause.—*Bull. de la Soc. Franç. de Derm. et de Syph.*, 1891, p. 117; *Ann. de Derm. et de Syph.*, 1891, p. 226.

(3) Hallopeau.—"Sur une hyperkératose palmaire et plantaire localisée aux orifices sudoripares et sur le rôle des orifices glandulaires dans les néoformations épidermiques," *Ann. de Derm. et de Syph.*, 1895, p. 480.

(4) Emery, Gaston, and Nicolan.—"Verrues familiales héréditaires avec dyskératoses systématisées disséminées et à répétition (type Psorospermose folliculaire végétante)," *Ann. de Derm. et de Syph.*, 1902, p. 1014.

(5) Mantoux.—"Porokératose papillomateuse palmaire et plantaire" (plates and drawings of clinical and histological appearances). *Ann. de Derm. et de Syph.*, 1903, p. 15.

(6) de Beurmann and Gougerot.—"Porokératose papillomateuse palmaire et plantaire." *Ann. de Derm. et de Syph.*, 1905, p. 629.

(7) Balzer and Germain.—"Kératodermie avec porokératose en godets épidermiques localisés à l'ostium sudoripare et disseminés à la paume des mains" (case and literature). *Ann. de Derm. et de Syph.*, 1905, p. 633.

(8) Balzer and Boyé.—"Kératodermie palmaire avec porokératose," *Bull. Soc. Franç. de Derm. et de Syph.*, 1909, p. 9.

(9) Buschke and Fischer.—"Keratodermia maculosa symmetrica palmaris et plantaris," *Ikonographia Dermatologica* (Neisser and Jacobi), 1906.

(10) Chalmers, A. J.—"Keratodermia punctata" (illustrations of clinical and histological features), *Journ. of Trop. Med. and Hyg.*, 1917, p. 121.

Of these cases of Besnier's the whole of the palm was keratotic and covered with punctæ. In the cases of Hallopeau and Clause and of de Beurmann and Gougerot there were keratotic streaks riddled with crateriform pits, and it seems possible that these were really examples of Linear nævi. In Mantoux's case and in that of Balzer and Germain the lesions did not cover the whole palm, and were of rapid evolution, and suggest the possibility of multiple plane warts. In Balzer and Boyé's case they were gradually evolved during several years in a man, aged 66 years. There were forty to sixty pits on each palm. They appeared to begin as vesicles, which then became warty and formed a crater by separation of the little warty growth.

In Chalmers' case there were very numerous tiny craters scattered over the palms and palmar surfaces of the fingers. They evolved during eight to nine months, and had the appearance of a circular heaped-up ring round a sweat orifice. Many exuded fluid at the apex and formed a central crust, which came away and left a cavity.

FIG. 2.—Diagram showing thickening of horny layer at A—B, but apparently no other change. There is no evidence of inflammation.

Chalmers compares his case with those of arsenical keratosis, and suggests a toxic origin, but without evidence of arsenical poisoning.

The case recorded by Buschke and Fischer seems to have a closer resemblance to the two cases now described, and it was the similarity of appearance of their coloured plate which suggested the diagnosis in these cases. The plate shows about 200, 1 to 4 mm. large epidermal efflorescences scattered over normal skin. Each lesion is an opaque yellowish-white, hard, horny nodule, without any erythematous

halo. The patient, male, aged 40 years, had noticed the affection for about sixteen years; no other cases in the family.

Histology.—Pieces of skin removed included one or more of the warty lesions, cut in serial sections to obtain every part of the lesion. The findings were mainly negative. There was a considerable thickening of the horny layer at the site of a warty lesion (Fig. 2). There were no changes in the sweat-coils or ducts, which latter passed through the affected area as through the normal skin. There was no evidence that the warty thickening began around the sweat-ducts, nor of inflammatory changes in the corium; nor of any alterations in the prickle-cell layer of the epidermis—no acanthosis and no parakeratosis. The absence of changes in the corium, sweat apparatus and Malpighian layer of the epidermis, with merely a thickening of normal horny cells, corresponds exactly with the histological findings of Buschke and Fischer.

Discussion.

Dr. H. G. Adamson said this was a very rare complaint. He had been able to discover the records of only ten cases. Most of them had been called porokeratosis, and Besnier so described the first case, and put a model of it in the St. Louis Museum. The cases are probably not identical. Clinically, they all had this punctate keratosis, with the tendency for the plug to come out and leave a hole. Some of the cases described under this head have certainly been small plantar warts, and some others Lichen planus. The two cases now exhibited are nævi.

Dr. F. Parkes Weber held the view, very strongly, that these lesions were of the nature of nævus. Certain similar cases had been published in which the keratosis was on a superficial telangiectatic basis. He had sent to the *British Journal of Dermatology* an account of a case which bears somewhat on these.* It was that of a healthy lad, who had a congenital vascular nævus, mostly superficial, involving a great part of the left lower extremity, including the gluteal region. On part of this area there were hyperkeratotic outgrowths, which could be knocked off, or torn off, and, naturally, had a tendency to recur. They sometimes looked like Ichthyosis hystrix when very well developed. In his case there could be no question that the lad had a congenital vascular nævus of one limb, a variety of "Nævus unius lateris," and in his description of the case he had referred to cases of congenital or familial hyperkeratosis involving the hands and feet, associated with apparently congenital telangiectasis of the parts involved. He did not mean that the nævus was necessarily congenital, but that the condition was at all events potentially present at birth.

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* *Brit. Journ. Derm.*, 1918, xxx, p. 89.

A CASE OF MULTIPLE BENIGN BASAL-CELL EPITHELIOMA OF THE SCALP, WITH SOME REMARKS ON THE TUMOURS OF THE SCALP COMMONLY CALLED "ENDOTHELIOMA CAPITIS" AND "SARCOMA CAPITIS."

By H. G. ADAMSON, M.D., F.R.C.P.

Numerous examples of tumours of the scalp are recorded in medical literature. The late Dr. Radcliffe-Crocker, in his work on *Diseases of the Skin*, gave references to most of these cases, and grouped them under the heading of "Sarcoma Capitis or Endothelioma Capitis (Turban Tumours)."

A further examination of these cases shows that they really belong to two distinct classes: in one class are tumours derived from the subcutaneous tissues, and probably of the nature of sarcomata; in the other and much larger class are growths which originate from the epidermis and which are basal-cell epitheliomata.

No authenticated case of Endothelioma capitis has yet been published, and the term, as applied to scalp tumours, seems to be a misnomer. Dubreuilh and Auche, in a paper in the *Annales de Dérmatologie et de Syphilographie* (1902, vol. iv, p. 545), were the first to recognise the true nature of these growths, and to demonstrate that they are epitheliomata which take origin from the basal-cell layer of the epidermis.

(1) Multiple Benign Basal-Cell Epitheliomata.

The following case is an example of the type of multiple benign basal-cell epithelioma—the so-called "Endothelioma capitis."

Case 1.—The patient, J. B—, was a man, aged 61 years. He presented on the scalp from forty to fifty tumours, which varied in size from that of a hemp-seed to that of a chestnut. They were firm, of the colour of the skin, with smooth surface devoid of hair, movable on the skull. They had been noticed for twelve years, but for thirty years there had been similar lumps on the back. Half a dozen small tumours were present in the skin of the back. The accompanying photograph shows the appearance and distribution of the tumours on the scalp.

A portion of a nodule was removed from the scalp for microscopical examination, and sections show the tumour to be composed

Fig. 1.—Multiple tumours of the scalp. Basal-cell epithelioma.

TO ILLUSTRATE DR. ADAMSON'S PAPER ON MULTIPLE BENIGN BASAL-CELL EPITHELIOMA OF THE SCALP.

of sharply circumscribed alveoli, rounded, oval, or irregular in shape, and surrounded by a clear hyalin stratum. The cells which make up these masses are rounded or oval, with large, deeply-staining nucleus. They are closely packed, and at the outer part of the alveolus are ranged in the form of a palisade layer. The appearances are those of a benign basal-cell epithelioma. They are identical with the appearances in sections from some examples of Brooke's "Epithelioma adenoides cysticum" in several members of one family, which the writer published in the *Proceedings of the Royal Society of Medicine* in 1914. In that group of cases, the mother, daughter and one son were typical examples of Brooke's benign Epithelioma adenoides cysticum, while another son had multiple tumours of the scalp, which showed the same microscopical appearances.

As has been already stated, Dubreuilh and Auche have clearly demonstrated that those cases of multiple tumour of the scalp which had hitherto been known as "Endothelioma capitis" were really of the nature of basal-cell epitheliomata, and a study of the published examples of multiple "endotheliomata of the scalp" and of those of Brooke's "Epithelioma adenoides cysticum" shows that they really belong to the same group; and if we examined the published cases of so-called "endotheliomata of the scalp" we find that in many instances several members of a family were affected, and that in some cases the tumours occurred upon the face or trunk as well as upon the scalp. Indeed, the cases pictured in *Kaposi's Hand Atlas* (clxxxi and clxxxii), as "Endothelioma congenitale" are obviously typical examples of Brooke's "Epithelioma adenoides." The plates represent father and daughter. The father, aged 60 years, has multiple tumours on the scalp and similar tumours on the back; the daughter has numerous growths upon the face and trunk and some on the scalp.

In Ancell's case, published in the *Medico-Chirurgical Transactions* in 1841–42, the plates again suggest Brooke's Epithelioma adenoides. There are multiple tumours of the scalp and smaller growths about the eyelids, nose and mouth, and others scattered on the chest, and the complaint affected females in many generations.

In Barrett's case, quoted by Crocker, the tumours occurred on the scalp and face in mother and two daughters. In Cohn's case the maternal grandmother was similarly affected, and although Cohn

calls the growth a sarcoma, the drawing of a section suggests "epithelioma adenoides," or basal-cell epithelioma.

It seems, then, that the majority of cases of so-called "Endotheliomata capitis" are really basal-cell epitheliomata, and that they belong to the group of cases which are better known as "Brooke's Epithelioma adenoides cysticum." In the case of the scalp tumours Dubreuilh and Auche have, in the paper referred to, clearly demonstrated their origin from the basement layer of the epidermis and of the hair-follicles, and have shown that there is no authenticated case of "Endothelioma capitis."

(2) Sarcoma capitis.

But there still remains a smaller group of cases of tumour of the scalp which probably belong to another class, namely, that of sarcomata. Of the published cases, two only can be identified as "Sarcoma capitis." These are Morrant Baker's case of "withering sarcoma of the scalp," and Oro's case, referred to by Crocker as a "spindle-cell sarcoma." Of Morrant Baker's case there are a wax model, two water-colour drawings and a microscopical section in the Museum of St. Bartholomew's Hospital. Baker's case is described as follows:

The patient was a young man, aged 24 years. He was admitted to St. Bartholomew's Hospital in March, 1890. Six years previously he had received a blow upon the head, and a few months later a tumour began to grow in this place. It reached the size of a sparrow's egg and then disappeared. Six to eight similar tumours subsequently appeared in different parts of the head, and then diminished in size. A large tumour situated over the left parietal and frontal regions appeared in September, 1889, and grew steadily until removed in March, 1890. Under the microscope the tumour was found to be a fibro-sarcoma.

A recent examination of the microscopical section confirms the statement that it is of the nature of a sarcoma.

Of Oro's case, Crocker says: "It occurred also after injury, was a spindle-cell sarcoma in a man, æt. seventy-four, and was more like Morrant Baker's case, but is described as a single tumour with lobes which covered the head like a turban."

A case, which is possibly a further example of "Sarcoma capitis," has recently come under the care of Mr. Blakeway in St. Bartholo-

Fig. 2.—Microscopical section from case of multiple tumours of the scalp. Shows groups of rounded or oval cells characteristic of basal-cell epithelioma.

TO ILLUSTRATE DR. ADAMSON'S PAPER ON MULTIPLE BENIGN BASAL-CELL EPITHELIOMA OF THE SCALP.

mew's Hospital, to whom the writer is indebted for the following notes :

Mr. Blakeway's Case.

Caroline E—, aged 57 years, tailoress. Was admitted to St. Bartholomew's Hospital on April 3rd, 1917, on account of tumours of the scalp. Two years previously she had been treated by X-rays for some lumps on the back of the head, and the lumps had disappeared. "Six months ago the present tumours appeared. They are situated in the following regions of the scalp: Frontal median, right temporal, over region of the bregma, left temporal, right parietal eminence. The largest is that over the region of the bregma. The tumours are nodular, firm, and in places bony hard. That over the bregma moves on the skull; the others appear to be firmly attached to it. There is no evidence of intracranial trouble. No evidence of syphilis. Wassermann reaction negative. A long treatment by hydrarg. perchlor. and potassium iodide (gr. xx to xxx *t.d.s.*) has not led to diminution in the size of the tumours. Skiagram (No. 2700–2709) shows a slight diffused deposited new bone on the surface of the skull, both beneath and remote from the main tumours. ? Periostitis."

A portion of tissue was removed for microscopical examination.

The microscopical appearances are described in the report as "consisting of granulation tissue. No evidence of malignancy." Although, on account of the fact that the cells making up the tumour have been shrunken in fixation, it is difficult to make a definite statement as to their true nature, the writer is of opinion that they constitute a small round-cell sarcoma rather than an inflammatory infiltration. The case at any rate does not belong to the group of benign basal-cell epithelioma.

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ULCERS OF THE LEGS, MISCALLED VARICOSE: A CLINICAL REVIEW.

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Ulcers of the legs, as we meet them in hospital practice, from which my statistics are culled, do not usually present a very dainty picture. The prolonged misery they cause to some people and their frequency make them worthy of our consideration. Their literature is extensive, and suggested modes of relief very numerous.

They are mostly attributed to two fairly common factors—*syphilis* and *varicose veins*. In the *Lancet*—the exact date I cannot recall—

a writer stated that fully 60 per cent. were due to the former, and all literature on the subject emphasises the preponderating influence of the latter.

I believe both these views to be incorrect.

Syphilis is said to be three to eight times more common in men than women, and yet we find that ulcers of the leg are four times more frequent in the latter than the former.

From this I think we can infer that syphilis is not the strong determining influence it is supposed to be.

Dr. D. C. Balfour (*Journ. Amer. Med. Assoc.*, 1915, vol. lxv, No. 20, p. 1752) says, "The ratio of the tendency to varicosity in males and females is as 3 to 2"—a statement which does not support the greater liability of the female sex to this complaint.

It will be conceded that many women habitually suffer from extensive masses of dilated veins with thrombosis who never develop ulcers.

Again, speaking generally, permanent varicosity following childbearing is equal in both legs. Ulcers are often restricted to one limb.

"Varices of the veins are found in every woman after the third pregnancy" (Budin).

"The worst cases of varicose veins often give the least trouble" (Bennett, *Lancet*, November 22nd, 1902).

If trauma is the chief agent, from a scratch to a blow, we ought to find an overwhelming number of the male sex affected. Sepsis is the usual complication of all open sores. There is no evidence that organisms are more virulent in women than men to explain the great predominance of ulcers in the former sex. Other exciting or predisposing causes must, therefore, be looked for.

The bacteriology of these lesions has not been largely investigated. A. Ravogli (*Journ. Amer. Med. Assoc.*, 1914, vol. ii, p. 387) found staphylococcus chiefly and the streptococcus rarely. It is well known that the first quickly outgrows the second. It is also, I think, accepted and proved by Adamson and others that it is the streptococcus in the lymph spaces and vessels of the derma which induces erysipelas and cellulitis. Further, it is the recurrent attacks of this coccus which leave in its wake the swollen skin and hard œdema, known as localised Elephantiasis nostras, so often found associated with the most obstinate callous ulcers. Sometimes Ravogli found the *B.*

pyanici in their secretions, and occasionally the *coli* and *proteus* bacilli. He also describes in detail the pathological and microscopical appearances of these sores.

The following tables comprise the consecutive examples of ulcerated legs coming to my clinic during the last five or six years. The youngest patient was 10, the oldest 67; males, 14; females, 55.

From the causative point of view the weakness of these figures consists in the absence of the application of the Wassermann reaction.

In the *men*, the direct cause is so obvious in many cases that a diagnosis can be confidently made, and in any uncertain case the doubt has been labelled syphilis.

With this proviso these 14 male cases show the following proportions:

Syphilis	6
Trauma or sepsis	3
Eczema or psoriasis	4
Tubercle	1

Of course sepsis aggravated them all, but was the immediate or only cause in the cases mentioned. Prominent, marked, or even observable varicosity was present in the ratio of 2 to 5. A history of trauma was usual. The cure was generally rapid and complete in a few weeks or a month under proper treatment.

The examination of the next series gives us quite a different picture. The most casual observer must be at once impressed by the fact that so large a number of *married women* are the sufferers. Ulcerated legs must, therefore, be due to some sexual disability. *That disability is the bearing of children.*

The result of the analysis of these fifty-five *female* cases does not pretend to be beyond criticism. It is based upon careful clinical examination and the weighing up of probabilities. Specific treatment has only been resorted to on rare occasions, even in those called syphilitic, and healing has taken place quite satisfactorily, with the exception of those which have followed phlegmasia. Those with obviously dilated veins, or which in any part of the leg gave the feeling of lumpy thrombotic subcutaneous nodules upon palpation, have been included amongst the varicose. Those following the effects of injury, if associated with varicosity of the veins, have also been placed under that heading.

Name.	Age.	Sex.	Duration and direct cause.	Varicosity.	Ulcer type.	Diagnosis.	Remarks.
1. J. A—	42	M.	Bad eight weeks.	None.	Superficial broken skin size of five shillings on one leg.	Eczematous.	Never previously.
2. M. A—	40	M.	—	„	Patch of psoriasis ? on right leg.	Psoriasis.	Seen in 1908.
3. J. A—	18	M.	Four months after injury down pit.	—	Ulcers on both legs.	Septic from work.	Redness and œdema round the ulcers.
4. J. A—	56	M.	—	—	Ulcers on both legs many years.	Syphilis ?	Ulcers on lower third of leg only seen in 1906.
5. P. B—	36	M.	Leg crushed twelve months previously.	None.	Ulcer middle third of left leg.	Syphilis or septic ?	To syphilis may be due its persistence.
6. J. B—	59	M.	Twelve months' history; scratched.	—	Superficial ulceration on lower third of leg, with eczematous zone.	Eczematous ulceration.	Four years ago had breaking out on both legs below knee. In bed twelve months. No old scars. Cured in four months. No specific treatment.
7. H. B—	15	M.	Began as abscess four months ago, which burst.	None.	Upper third of right leg ulcer size of a shilling.	Tuberculous.	Little pain. Easily cured without specific treatment.
8. J. Y—	51	M.	Four years ago barrel of stone fell on leg. Healed in fourteen weeks.	„	Superficial ulcer of right leg. Six weeks' history.	Septic breakdown of old injury.	—
9. J. Y—	71	M.	—	Very prominent.	Numerous large ulcers on right leg.	Septic ? Neglected syphilis.	Very indefinite history. Much neglect.
10. R. T—	10	M.	—	—	Ulcer of lower one-third left leg.	Tubercular.	Ulcer of cornea.
11. J. K—	65	M.	Three years' history.	Numerous.	Superficial ulcers.	Eczematous.	Leg never swells. Dark blue patches of discoloration, with many yellow scales.
12. W. L—	34	M.	Three weeks' history. No sore previously. No specific history. (Children: Alive, 2; dead, 2—1 of these stillborn).	—	One large ulcer. Many smaller on the right calf.	Syphilis ? Streptococcal.	Much inflammatory thickening and redness.
13. W. L—	24	M.	Injury eighteen months ago, followed by an ulcer. Hurt the second leg lately. History of rashes and ringed eruptions on legs and thighs, which did not itch.	—	—	Tuberculous or specific, trauma.	—
14. B. H—	42	M.	Accident five months previously. (Children: Five died under 1 year old.)	—	Numerous ulcers on left leg size of sixpence.	Syphilis ?	—

FEMALES.

Name.	Age.	Sex.	Children.		White swelling.	Duration, history, and cause.	Complications and confinements.	Varicose veins.	Ulcer type.	Diagnosis.	Remarks.
			Alive.	Dead.							
1. J. B—	46	F.	5	2, convulsions.	No.	Some weeks.	—	No thrombosis.	Very painful. Pruritus intense. Lower third both legs. Humerus vesicles. Very superficial.	Eczema.	—
2. M. Bo—	38	F.	5	1, 24 hours old.	,,	Four years previously had sore ankle. Two weeks' history. No tuberculous or specific history. History of bruise.	—	None.	Superficial ulcer size of threepenny-piece on centre of left leg. Punched out with large painful areola round.	Trauma.	—
3. M. Ba—	35	F.	5	3	White swelling after last child. In bed with left leg seven weeks.	Difficult to cure.	Since last child left leg always swollen at night.	No thrombosis. No brawniness. No varicose veins.	Four superficial ulcers on leg on lower third.	White swelling.	—
4. M. Bl—	35	F.	3	—	None.	Some weeks.	—	Varicose veins very numerous. Skin much discoloured.	Five superficial ulcers on right ankle.	Varicose. Syphilis?	No itching.
5. N. Bo—	30	F.	2	—	,,	Two weeks ill.	No complications.	None.	Ditto.	Tubercular.	Had sore legs when a child. Seen once fifteen years ago. Comes of strong family.
6. J. Be—	49	F.	7	—	,,	Had a similar trouble twelve months ago.	—	,,	Left leg, superficial ulceration.	Syphilis?	Old scars on right shin. Seen twice.
7. M. Ba—	51	F.	—	—	White swelling after last child. In bed thirteen weeks. Both	Twelve months' ulcer of right leg. Left ulcer recent and	Legs never well since last child.	—	Ulcers on both legs lower third.	White swelling.	Large areola. Twelve months' treatment did not effect a cure.

				carriages.		months' duration.			lower third of left leg.	or eczematous sepsis?	
9. M. Be—	48	F.	14	1	„	Nine months' duration.	—	Not marked. Skin thickened. No brawniness.	Very superficial ulceration lower third leg.	Eczema.	Some old fine scars.
10. M. Be—	52	F.	8	3 dead; 1 miscarriage.	„	Three months' duration.	No complications.	Slight.	Upper third of right leg ulcer and on knee two painless ulcers.	Syphilis.	Ulcers are deep and crate riform.
11. J. J—	56	F.	6	7	—	Twelve months' history. Had an ulcer. Healed. Present one broke out after a knock.	No trouble or miscarriages.	Varicose veins on both legs.	Small ulcer left leg, lower third.	Varicose?	Much lumpiness, brawniness, and discoloration and thrombosis of left leg. Right normal.
12. A. F—	36	F.	7	—	None.	Three weeks' history. Caused by a scratch.	—	None.	Two ulcers on left leg.	Septic.	Cured in five weeks.
13. A. L—	47	F.	1	—	„	Erysipelas in same leg two years previously.	—	„	Ulcer on middle third of right leg.	Elephantiasis. Nostra septic.	Much swelling in this leg for many weeks.
14. E. Ha—	35	F.	4	Now dead.	„	Burst vein six months previously in right leg.	Legs always swollen when carrying children, particularly the left.	Much varicosity of veins. One leg not worse than the other.	Two superficial ulcers since burst vein on right leg.	Burst vein. Ulcers very tedious and slow to heal.	Has had erysipelas in left leg. Itching is terrible in both legs.
15. M. Sh—	53	F.	2	3, no miscarriages.	White swelling in both legs after second child. In bed with it twenty-four years ago. Legs always very troublesome since.	—	Except for second child, has had no trouble when carrying first, third, or fourth child.	Not at all prominent.	Ulcers on both legs and foot. Great pain at night. Board-like feeling. Much redness and discolouring. Ulcers on lower third of legs. No local thrombi felt.	White swelling.	Left leg always swells at night. For many years has had to go to bed off and on for a few days because of the pain in the legs and ulcers.

FEMALES—*continued.*

Name.	Age.	Sex.	Children.		White swelling.	Duration, history, and cause.	Complications and confinements.	Varicose veins.	Ulcer type.	Diagnosis.	Remarks.
			Alive.	Dead.							
16. M. Fo—	32	F.	3	None; no miscarriages.	None.	Skin always itchy last four months and always scratching.	Legs used to swell to third month and after when pregnant. No swelling since.	Varicose veins in both legs prior to marriage. No thrombosis to be felt. No brawniness.	Small superficial ulcers on both legs lower third.	Erythematous eczema.	Has much pain on standing. Large patches of superficial redness on both legs.
17. S. Gr—	42	F.	5	All dead within first year.	In bed after last child with white swelling some months.	Syphilis? White swelling.	—	Veins not marked.	Small deep ulcer lower third of left leg.	White swelling, specific?	Subject to boils on right leg last two years. Right leg often swells up at night. Left leg, pain on standing long time.
18. M. Ma—	78	F.	2	1	After last child, forty years ago, had white swelling in left leg. In bed six weeks or more.	—	Since last child left leg has always been troublesome.	—	A few years ago left leg ulcerated. Large ulceration 3 × 2 in. lower third. Large red areola and much thickening. Ulcer deep.	White swelling.	Difficult to cure.
19. K. Ma—	64	F.	1	No miscarriages.	None.	Kicked seventeen years ago.	—	No thrombotic nodules. Numerous veins developed after first child. Had none before.	Ulcerations on both legs last six months. Much redness round ulcers, ½ × ½ in. Ulceration superficial.	Traumatic ulcer.	Both legs have always been swollen night and day since the kicks.
20. M. Sm—	38	F.	3	5; no miscarriages.	„	—	Right leg always swollen from three months when carrying a child.	Not many.	Right leg ulcer size of five shillings, intensely painful. Began six months ago.	Syphilis?	Treatment does not improve. Paint and lotion relieve pain. Trying specific treatment. Left leg quite normal.

				riages.	ling in right leg six months after confinement.				right malleolus.	specific?	sore leg in 1902, 1904, 1906, and 1910.
22. M. An—	50	F.	7	5	White swelling in left leg after fifth child.	—	—	A few.	Ulcer on left leg only. Had it eighteen years. Size of half-a-crown. Middle third of leg.	White swelling.	Left leg always swells at night.
23. A. Ab—	42	F.	4	4	No.	—	—	A few on both legs.	Ulcer size of florin outside of lower third of leg and outside red inflammatory patch, and outside that some pustules. Ulcer painful, and sharp-cut edges. Ulcer size of threepenny piece.	Eczematous.	Bad four months. Behind left knee papulo-vesicular patch of eczema. Trace of albumen in urine. Had similar condition in 1909.
24. T. As—	53	F.	6	9	,,	Bad six months.	—	Deep thrombosis. Few veins.	Large clean-cut ulcer in left leg, middle third; œdematous round.	Varicose and septic.	Trace of sugar. Numerous deep red papules which extend the ulcers by new foci. Had similar trouble in 1908.
25. S. At—	48	F.	10	—	,,	Many years, off and on.	—	Not pronounced.	Both legs affected. First one, then the other, breaks out. Numerous scars and small ulcers.	Septic.	Same thing in 1908. Very painful. Easily cured.
26. M. An—	26	F.	3, all living.	—	—	Knocked her leg against a pan.	No miscarriages.	—	Circular ulcer of left leg.	Trauma.	Soon better.
27. M. As—	42	F.	—	—	White swelling of left leg.	Ulcer after white swelling six months later.	Miscarriage twelve months previously.	None.	Small ulcer of left leg.	White swelling.	—

FEMALES—*continued.*

Name.	Age.	Sex.	Children.		White swelling.	Duration, history, and cause.	Complications and confinements.	Varicose veins.	Ulcer type.	Diagnosis.	Remarks.
			Alive.	Dead.							
28. M. Br—	39	F.	—	—	—	—	—	—	Rash on legs and top of both feet.	Eczematous.	Soon better.
29. M. Mo—	27	F.	Single.	—	—	Wound on middle of left leg twelve months previously.	—	None.	Three ulcers size of one to two shillings. Right leg.	Tubercular. Feeble circulation.	Circulation poor. Anæmic. No syphilis or tubercle. Livedo reticularis *ab igne*. Fingers bluish, almost black, if put into cold water.
30. E. Mi—	67	F.	—	—	—	Twelve months.	—	—	Superficial ulcers with large eczematous patch on left leg.	Eczematous.	—
31. J. Ma—	51	F.	7	6 died in childhood from fevers; 1 stillborn; 1 miscarriage.	No.	Has troubled her for years.	Veins came after marriage.	Veins dilated all over the legs and in thighs. No thrombosis.	Ulcers on both legs; deep congestion around. Intense pain in ulcers. Burn like fire. Ulcers in lower third of leg.	Varicose ulcer. Specific?	Legs swell nightly up to the knees. Much pigmentation. Legs keep ulcerating alternately.
32. M. Sm—	42	F.	7, all alive.	—	No.	Knocked right leg five years ago. Never right since.	After fifth child legs always swelled after third month of pregnancy.	Noticed veins after first child. Gradually got worse after each confinement. Veins very prominent on both legs above the knees.	Numerous scars and a few ulcers on the lower third of right leg.	Varicose.	For many years right leg has always got painful after midday and begun to swell.

						leg twenty years ago.	pregnancy and every succeeding one since legs swollen at night.	burst in both legs. Have become extremely prominent since carrying the fourth child.	ing in both legs, but ulceration much more pronounced in right.	Varicose. Trauma.	has been painful and swollen. Began after midday. Pain in ulcers is sometimes very severe.
34.	M. Wi—	48	F.	3	—	None.	Eight years ago had an ulcer some months.	No miscarriages.	Numerous on same thigh.	Small ulcer on lower third right leg.	Hypostatic ulcer.	Extensive pigmentation, soon healed.
35.	S. Ho—	48	F.	2	4	White swelling in left leg twenty years ago, after first child. In bed sixteen weeks.	Ulcer history of three years.	1st child died at 8 months old; 2nd at 6 months; 3rd at 1 year 10 months; 4th at 1 year 11 months. Leg always gives trouble when pregnant.	None. No thrombosis.	Large superficial ulcer round lower third of left leg. Patch of eczematous condition round.	White swelling.	Right leg no trouble. New ulcer formed during treatment. Treatment most difficult and unsatisfactory. Left leg always swells at night.
36.	A. Da—	49	F.	9	—	White swelling.	Had small ulcer two years ago. Present one eight weeks.	Twelve years ago had dropsy in left leg after confinement, and has suffered in this leg since.	None.	Small ulcer on lower third.	Ditto.	Left leg swells persistently. Right normal.
37.	M. Dr—	39	F.	2	3	White swelling two years ago, after last child. In bed a month with left leg.	Quite well up to three months ago, when left leg began to swell at night. Then broke into holes.	—	,,	One large ulcer on left ankle.	Ditto.	Much pain and smarting all day. Worse at night. Left leg very tender to pressure up to middle third.
38.	M. Bo—	43	F.	5	—	None.	Veins have burst in both legs. Right leg has swollen very severely last twelve months.	Both legs swell at night when pregnant from the third month.	Prominent.	Numerous small superficial ulcers in both legs. Much redness and brawniness around.	Burst vein, septic.	No deep tenderness to pressure. The ulcer, size of a shilling, intensely painful.

FEMALES—*continued.*

Name.	Age.	Sex.	Children.		White swelling.	Duration, history, and cause.	Complications and confinements.	Varicose veins.	Ulcer type.	Diagnosis.	Remarks.
			Alive.	Dead.							
39. M. Cu—	70	F.	6	—	White swelling in right leg twenty-five years ago, after last child.	Swelling which has never gone down in right leg.	—	A few in both legs.	Ulcer on right leg size of five shillings.	White swelling.	Much brawniness round ulcer.
40. M. Co—	55	F.	6	6	None.	Had a small sore on right leg two years. Two years ago whole leg swollen up. In bed three weeks.	No trouble.	A few in both legs; not now marked in right.	One ulcer size of florin. Two small ones on lower third of right leg. The whole of the lower part is brawny, red. Thickened, tender, and itching.	Traumatic (scratching) septic œdema. Ulcer (streptococcus?).	Seen many doctors last two years.
41. E. Ca—	37	F.	1	5	White swelling in right leg twelve years ago. In bed six weeks.	Ulcer three years.	—	Varicose veins very few, and no feeling of thrombosis.	Three small ulcers in left leg.	White swelling.	—
42. P. Cl—	28	F.	—	—	White swelling in both legs after confinement four years ago.	Legs always giving trouble since.	—	Not marked.	Ulcers in both legs. Both calves thick, œdematous, and hard.	Ditto.	—
43. M. Go—	53	F.	7	—	None.	—	—	—	—	Not diagnosed.	Seen only once.
44. E. W—	50	F.	6	—	,,	—	—	—	—	Ditto.	Seen only twice.
45. K. Ga—	39	F.	7	3 miscarriages.	White swelling after third child, ten years ago. In bed two months with left leg.	Swell at night for many years, and the legs are painful, except when lying down.	—	—	Two superficial ulcers on left leg. Nothing gives her comfort. Everything applied gives pain in the	White swelling.	Orthoform gave her ease for two days.

46. H. As—	44	F.	1	6	White swelling in right leg twenty-five years ago, after first child.	History of ulcer four years.	All six children died under a month after birth.	Numerous varicose veins on both legs.	Both legs ulcerated. Deep ulcers on right; smaller and shallower on left. Some intensely painful.	White swelling. Syphilis.	Both legs swell at night.
47. E. Le—	62	F.	—	—	None.	—	—	—	Numerous ulcers and scars below the knee on both legs.	Specific.	—
48. C. La—	45	F.	—	—	Seventeen years ago had white swelling in both legs.	—	—	—	Ulcers on right leg.	White swelling.	—
49. A. Th—	47	F.	5	—	—	Twelve years ago both legs were broken out together.	—	Many varicose veins.	Very superficial small ulcerations on both ankles.	Eczema.	Much itchiness all over legs. Cured in six weeks.
50. S. Ho—	38	F.	6	—	None.	Began as pimples two years ago.	Legs never swell during pregnancy nor after confinement.	Swollen veins very conspicuous. Numerous bunches of swollen veins in both legs below the knees.	Large plaques of superficial ulceration.	Varicosa eczema.	Cleared up quickly with treatment—non-specific.
51. M.O'Ha-	25	F.	—	1	,,	Six years ago had ulcer and varicose veins from injury. Injured it against a skip a month ago and has since broken out.	—	Had varicose veins, getting worse since first injury to right leg.	Large ulcer with thick edges and much discoloration.	Trauma.	No prominent veins in the left leg. Easy at night. Painful by day.
52. A. Sm—	54	F.	6	2, aged (1) 11 days, (2) 6 mos.	,,	Scald twenty-four years ago. Got better. Broke down twenty years ago.	Both legs swell when pregnant.	—	Holes occur in the old scar in left leg.	Scald.	Pain, which she describes as something awful.

FEMALES—*continued.*

Name.	Age.	Sex.	Children.		White swelling.	Duration, history, and cause.	Complications and confinements.	Varicose veins.	Ulcer type.	Diagnosis.	Remarks.
			Alive.	Dead.							
53. E. Ta—	22	F.	Spinster.	—	—	Left leg injured twelve months ago. Swollen and broken down since.	—	A few.	Ulcer very intractable.	Trauma. Anoasphyxic.	Both feet are red and bluish. Circulation slow. Hands chilblain type, cold, and damp. Legs very moist, and drops of perspiration stand out on them.
54. A. Sh—	68	F.	3	8	None.	Knocked right leg two months ago. A month ago it broke down in the same place. Never had sore previously.	Legs were never swollen when carrying children.	No varicose veins. No thrombosis.	Five to six ulcers on the right leg.	Trauma.	Pain very severe at night or when standing, and gets fearful in the evening. Paint, arg. nit. and benzocain, gave relief for two days.
55. W. S—	67	F.	7	9; all over 9 years; 3 miscarriages.	,,	Six years previously knocked left leg. Has broken out off and on since. Has had two attacks of erysipelas in leg since.	—	None in either leg.	Large deep ulcer size of five shillings lower third of left leg.	Ditto (erysipelas). Repeated attacks of streptococcus.	Some brawniness round. No redness.

GENERAL REMARKS.

Tubercular and syphilitic ulcers are usually not painful.
Septic ulcers are intensely painful.
Erysipelas is the common name for streptococcal inflammation.
From the above tabular list there is a suggestion that some of the cases of white swelling may have some connection with the enthetic diseases.

With these stipulations the analysis works out as follows :

White swelling	17
Varicose	7
„ and with a history of burst veins	3
Traumatic	9
Eczematous	7
Septic	2
Syphilitic	5
Scald	1
Tubercular	2
Not diagnosed	2

The first outstanding fact is the rareness of this trouble in unmarried women.

No less than seventeen of these patients gave the significant history of having suffered from Phlegmasia dolens after one of their confinements. This is especially striking when we remember that Phlegmasia dolens only complicates 1 in 400 cases of pregnancy (R. W. Johnstone, *Textbook of Midwifery*, 1913, p. 397). Varicose veins, on the other hand, are comparatively a very common ailment.

It is the invariable complaint that if this post-parturition infection does affect one or both legs, it or they remain constant sources of trouble for years, such as occasional or continual swelling, or pain and discomfort after walking, even when not carrying children. These limbs remain tender to pressure. In women is this the disease which leads to the large percentage of the incurable, distressing, and most unsatisfactory examples of inveterate chronic ulcers of the leg.

The above figures support the following points :

If both legs have been the seat of white swelling, the ulcers will be bilateral ; if only one, that leg will develop an ulcer.

Phlegmasia is twice as frequent in the left as in the right leg.

Eczematous ulceration occurs either in both legs, or in the left only.

In the varicose conditions the right leg, or both legs, suffer in equal proportions.

The left leg seems to be more liable to injury, and so proportionally develops a larger number of traumatic ulcers.

Most of us accept the theory that superficial varices follow obstruc-

tion to the main *venous* circulation, caused, in the cases we are considering, by pressure of the pregnant uterus. After the third confinement there are few women who have not developed a plentiful crop, but generally without ill consequences.

The cause of Phlegmasia alba dolens is disputed. Routh says, "The ætiology and pathology are not well known" (*Lancet*, July 12th, 1913). The two supposed varieties are the thrombo-phlebitic and thrombo-lymphatic. Both arise from septic infection (streptococcal ?) from the womb or vagina, the one producing *venous*, the other *lymphatic* obstruction in the legs. It is surely futile to suggest that a septic thrombosis forming in the uterine veins will gradually extend into the internal and common iliac, and will then descend against the venous stream into the external iliac and femoral veins, without producing a much more immediately dangerous result than white swelling of the leg. Such a thrombus is more likely to pass upwards or a part become detached, forming an embolus into the main current with tragic and fatal results.

Further, such a sudden impediment to the deep venous return would lead to prominent engorgement of the superficial veins. This is not, however, a usual feature of phlegmasia of the lower limbs.

A cord-like enlargement, which can be felt, of the supposed thrombosed femoral vein is said to be "a pathognomonic sign of this variety." It must be well known to any careful observer how easy it is to mistake such a condition, especially in a swollen leg, for a chain of enlarged femoral glands. These are commonly present with even a few impetiginous (streptococcal) sores on the lower extremities, and must be invariable with so heavy an infection as occurs in Phlegmasia dolens.

Progressive infection, by streptococci, of the sluggish circulation of the uterine or vaginal *lymphatics*, vessels and spaces as a direct cause of phlegmasia is more understandable. It will start inflammation in the nearest gland. This will cause obstruction of the afferent vessels. The infection will travel rapidly along them to the distal glands. Soon the whole lower series of glands will be implicated and the lymph circulation blocked.*

* Dr. Stopford, Lecturer on Anatomy, University of Manchester, to whom I mentioned the apparent anatomical difficulties of phlegmasia, says: "Lymphatic obstruction in the glands related to the common iliac vessels, which form the

Obstruction to the venous flow produces serous effusion—ordinary œdema. Obstruction to the lymph flow causes a fibrino-serous exudation, leading to that peculiar brawniness, so difficult to eradicate, which accompanies so many of these chronic phlegmasic ulcers of the leg.

Personally, I think we may regard a varicose ulcer as due to a local infected wound, or scratch, setting up an infective thrombus in a dilated vein immediately beneath it. If sepsis is allowed to continue, as, for example, by bad treatment, the lymph spaces and channels become secondarily involved and a slow inflammation is provoked, with low tissue formation and the callous ulcer. This brawny infiltration in my experience is uncommon in the simple traumatic or varicose ulcer. On the other hand, if from trauma or other cause ulcers form on a leg after phlegmasia, it is invariably the leading symptom.

The *prognosis* is thus gravely altered if an ulcer forms in a leg which has been the seat of white swelling, or follows after repeated attacks of so-called erysipelas (streptococcal), the localised form of "Elephantiasis nostras." This is occasionally seen in the eyelids and lips. In the latter it is known as "blubber lips," and is remembered by most of us because of its inveteracy. It sometimes takes years to reduce these swellings to the normal. Speaking generally, the varicose and eczematous ulcers are superficial, and, if made and kept thoroughly aseptic, are satisfactory to both patient and doctor.

It appears, from the teaching of modern pathology, that the erosion of the tissues and extension of ulcers are due to sepsis. The disintegration and digestion of the tissues arise from the presence of the trypsin liberated by micro-organisms and from the leucocytes at their death. Wright says—"A naked tissue surface, if kept wet, will, as soon as the discharge becomes tryptic, readily undergo erosive digestion." Normal serum neutralises these digestive ferments, and the antibodies in the serum inhibit the growth of bacteria which kill the white cells. A spreading ulcer is one, apart from tension, which is being literally eaten away and is always painful. "Trypsin in an

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chief lymph drainage from the uterus, would affect the lymph drainage from the legs, since the majority of lymphatic vessels from the lower limb pass *viâ* the external iliac glands to those in relation to the common iliac."

alkaline medium powerfully corrodes, rather than dissolves fibrin" (*British Pharmacopœia Codix*, p. 1054).

This view is supported by the behaviour of the typical ulcers found amongst chrome dyers and in fell-mongers from lime. Whilst at work the patients complain of little pain, as the watery solutions with which they work constantly wash away the tryptic pus. At night, unless some strong antiseptic, such as tar, is dropped into the holes, the pain is often excruciating, owing to the unmolested erosive action of ferments formed in the suppurating wounds.

This theory supports the usual practices, in the treatment of ulcers of the leg, which have been found useful for centuries. Excluding, of course, syphilis, tubercle, etc., the two main indications are: To continually wash away the tryptic pus and organisms, which live in the wound and lurk in the interstices of the surrounding tissues. Until that is done, no ulcer will begin to heal.

The second is the use of antiseptics. These latter are of little value until the former is effected. Whatever method you label the first treatment, or adopt to carry it out, the principle is the same. Some call it physiological, some fomentations. The dead pus and the bacteria as they germinate must be washed away copiously and frequently, and healthy serum encouraged to bathe the parts. In time this treatment alone, if persistently employed, will resolve most of the surrounding inflamed thickened tissue and heal the majority of ulcers of the leg. It is tedious and irksome, but at the same time a most valuable prelude. With large and foul-smelling ulcers I know of no finer antiseptic lotion than *l'eau d'Alibour*, and have used it for years. Sabouraud gives its composition in *Entretiens dermatologiques*, p. 395:

R	Sulphate of zinc	7 grammes.
	Sulphate of copper	2 ,,
	Camphor and saffron, āā	50 ,,
	Water	300 ,,

Sig.: Applied repeatedly to the parts on cloths with 3 to 5 parts of boiled water.

Previous to the application of any permanent dressing, such as strapping or zinc gelatine, I freely swill the whole surface of all superficial septic sores or any patches of chronic eczema with yellow

paint. This paint is powerfully antiseptic, desiccant, at once relieves all itching, and leaves a fine protecting antiseptic film over the limb.*

In "phlegmasic ulcers" frequent and gentle massage is essential.

The usually small, persistent, intensely painful ulcer, sometimes called the "irritable" ulcer, is often refractory. I think it is a slowly corroding septic form, the enzymes nibbling at a sensory nerve-ending. I usually give these ulcers three or four consecutive swabbings with yellow paint, or silver nitrate in alcohol, and fill up the cavity with orthoform. This generally gives relief for forty-eight hours.

Most men have their special lotion, powders and ointments, which constant use has shown them when and how to handle, and to apply effectually. There is no one certain method which will cure a long-standing ulcer of the leg. The one important guiding symptom to remember is, that so long as the cavity of an ulcer contains dead cells and living microbes, and the latter are germinating in the lymph spaces and tissues around it, as is shown by redness and tenderness on any part of its edges, so long will that ulcer continue to increase in size and fail to heal.

From the foregoing review of ulcers of the leg, I think we may infer that an attack of Phlegmasia alba dolens cripples a woman more or less severely for the rest of her life.

* Yellow paint—

℞	Camphor	ʒij
	Acidi carbolici	ʒiss
	Hyd. perchlor.	gr. iv
	Acidi picrici	ʒss
	Tragacanth	ʒj
	Alcohol	ʒvj
	Tr. benzoin	ʒij

Fiat pinct.

IN MEMORIAM.

ÉMILE DUBOIS-HAVENITH.

It gives me a melancholy satisfaction to respond to the invitation of the Editor of the Journal to contribute to its columns, on behalf of British dermatologists, a memorial notice of Dr. Dubois-Havenith, whose death, in his sixty-fifth year, has brought sorrow to his many friends in these islands. Born at Renaix, on May 22nd, 1854, he

began his education at Enghien, and thence proceeded for his University course to the three Faculties of Louvain, Ghent, and Brussels. Having established himself in practice in Brussels, he at once specialised in affections of the skin, and became the founder of Belgian dermatology. His zeal for medical education led him to give gratuitous courses of lectures in the University, on the staff

Plaque commemorating the First International Conference on Syphilis. Enlarged.

of which he for a time held an appointment. The same devotion to medical science, reinforced by sympathy with suffering humanity, prompted him to establish, in conjunction with Dr. Hieguet, whom he had met at a congress in London, the Polyclinique de Bruxelles, for the special benefit of the poor, and the esteem in which he was held by his *confrères* enabled him to secure the co-operation of the best specialists in various branches of medicine. He was also one

of the founders of the Société Médico-chirurgicale du Brabant, of which he became President and Secretary, and was a leading member of the Société d'Hygiene et de Salubrité Publique and of the Maison des Médecins, Corresponding Member of the Académie de Médecine, and Secretary-General of the International Conference of Prophylaxis. His many-sided services to medicine did not go unrecognised. He was Officier de l'Ordre de Léopold, held the same rank in the Ordre de l'Instruction Publique (France), and was the recipient of decorations from Italy, Roumania, Serbia, and other lands.

In the great crusade against Venereal Disease Dr. Dubois-Havenith took an influential part, especially as Secretary-General of the International Conferences on Syphilis held in Brussels in 1899 and 1902. As a memento of the earlier conference a beautiful plaque, designed by his brother, was struck, and is here reproduced. In 1914 he came to London to place his wide knowledge of the subject at the service of the Royal Commission on Venereal Diseases, and gave valuable evidence. This was but one of many visits to London. He was an honoured guest at the Seventeenth International Congress of Medicine in 1913, and was the spokesman of the medical profession of Belgium at the dinner of the President of the Dermatological Section.

When the International Congress of Dermatology, assembled in Rome in 1912, appointed a Committee to arrange for the formation of an International Dermatological Association in order to give continuity to the work of the Congress, Dr. Dubois-Havenith consented to accept the laborious office of secretary. No better choice could have been made. As Chairman of the Committee, I was in constant communication with him, and have retained a vivid impression of the tact and skill and resource which he brought to bear upon negotiations by no means devoid of difficulty. Thanks largely to his diplomatic gifts, of which an innate amiability was not the least conspicuous, the scheme was brought to fruition at the International Congress in London, 1913.

The war did not drive Dr. Dubois-Havenith from what he regarded as his post of duty, and he continued his practice in Brussels amid all the horrors of the German occupation. One of his sons—he was married in 1883—fell in the heroic resistance offered to the

invading hordes; another is still fighting in the Belgian Army. The miseries and sufferings of his friends and compatriots must have sunk deep into a nature so sensitive and so full of sympathy, and may well have had some share in bringing his distinguished and beneficent life to an end. Devoted as he was to his profession, he was not without inclinations to Art, and was an accomplished amateur in music. But his genius for friendship always appeared to me to be his most salient characteristic, and it is as a friend even more than as a *confrère* that I pay this imperfect tribute to his memory. MALCOLM MORRIS.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

MEETING held April 18th, 1918, Sir JAMES GALLOWAY, K.B.E., C.B., President, in the Chair.

Dr. E. G. GRAHAM LITTLE presented a further report on case of *extensive dermatitis*, shown on December 20th, 1917. Three months ago this case presented a difficulty of differentiation between Mycosis fungoides and a widespread coccogenic eruption. At the suggestion of several members he was taken into hospital, and had been under his observation two months, to ensure continuous dressings and other treatment. The lesions were of the seborrhœic type—that is to say, greasy, raised, slightly scaly patches; but these have now practically disappeared under treatment. The obstinate patches, which made him hesitate about the diagnosis, were those on the lower extremities as well as those on the lower part of the abdomen. They still caused him difficulty; they were still raised, and they did not heal readily. The question was whether he was not wrong, and whether those who suggested it was Mycosis fungoides were not right. He was now in a stage in which it was, perhaps, more easy to differentiate. He had brought a section, which was again, he was afraid, dubious. It showed a considerable infiltration for eczema, but perhaps not enough for Mycosis fungoides. He still thought, and hoped, it was seborrhœic eczema. At first it was seen by Sir Malcolm Morris and diagnosed by him as Mycosis fungoides, and Dr. Dore and some other members supported that view.

Dr. PRINGLE said that when this case was first shown he considered it would get better with prolonged baths and antiseptic applications. He still thought that it was a pyodermia. The improvement which had taken place was very striking, and was not compatible with the diagnosis of Mycosis fungoides.

Dr. S. E. DORE said he was still of the opinion that this was a case of Mycosis fungoides. He suggested that X-rays would be useful for diagnosis. Patches of Mycosis fungoides cleared up with such rapidity under X-rays that it would be useful to try them here on a single patch. He did not think pyodermia or seborrhœic eczema would clear up so rapidly.

Dr. GRAHAM LITTLE (in reply) said that X-rays had been tried on the right leg only, but he could not see much advantage so far.

Dr. J. L. BUNCH showed a case presenting a *syphilitic rash first appearing after twenty-three injections of novarsenobillon.* The patient, a private in the Army, had a chancre eight years ago, which was diagnosed by a well-known surgeon as syphilitic, and treated by him with mercury injections and otherwise for three years. No skin-eruption was seen then, or at any time until five weeks ago. At the end of the three years' course of treatment the patient was pronounced free from syphilis.

In November of last year his blood was examined at a London military hospital, and the Wassermann reaction was found to be positive. So he was ordered intravenous injections of novarsenobillon twice a week, 0·3 or 0·5 grm., and intramuscular injections of mercury once a week. After twenty-three injections of novarsenobillon he devoloped a rash, which commenced on the arms, near the sites of injection, and on the buttocks, also near the sites of injection. The injections were then discontinued. The rash spread down the fore-arms, but did not involve the hands, down the thighs above the knees, and later to the trunk. The face was not involved.

When seen by him the lesions were irregular in distribution, erythematous, slightly scaly and definitely follicular. There was adenitis of the groin, and the epitrochlear glands were enlarged. The tongue and throat were clear. There was no sign of a chancre anywhere. The diagnosis lay between a syphilide, in which case the lesions corresponded in character to a secondary eruption, and Pityriasis rosea. If a syphilide, it appeared that it must either be the result of a second infection (of which there was no evidence), or a lighting up of the eight-year-old infection, giving rise to a very anomalous rash. And this after twenty-three injections of novarsenobillon! Or, in view of a certain amount of itching, there was the

possibility that it was a very abnormal case of Pityriasis rosea. Before the course of injections the Wassermann reaction was said to have been positive, after twelve injections negative, and after another eleven (twenty-three in all) again positive. He had it done on April 9th (nine days ago) and it was positive.

At present date (April 18th) the distribution of the rash was such that the face, the hands, and the legs below the knees had escaped. The forearms, the thighs and the trunk were most affected, and the lesions were scattered and showed but indefinite signs of grouping. They varied in size from small follicles to patches the size of a shilling, were erythematous or pinkish in colour, and some were definitely scaly. There were no lesions on the elbows or knees, and the patches in no way resembled psoriasis. Some of the patches were fading, but the better marked spots most closely resembled a follicular syphilide. There was no evidence of a chancre; the throat was not affected, but there was some adenitis.

He proposed to excise one of the patches and examine sections for the *Spirochæta pallida*.

Dr. PERNET said the mode of development and appearances of the rash were those of a secondary syphilide, especially the follicular grouping. Histories were so fallacious that it was wise to disregard them. He had found that the Wassermann reaction was always negative in Pityriasis rosea, except when the latter occurred in an old syphilitic, when the reaction might be positive.

Dr. GRAY said he was convinced that this was not Pityriasis rosea, because it was a very definite follicular hyperkeratosis, and did not correspond with the ordinary characters of that disease. The only two conditions that this case resembled were a follicular tuberculide or a follicular syphilide. The former was an extremely rare condition in an adult, and only occurred in people who showed definite signs of tuberculosis. This patient showed no such signs, and he was therefore of opinion that it was a follicular syphilide. This appeared to be an example of over-treatment by the arsenical preparations. Such cases were not uncommon when mercury was pushed so as to produce a marked lowering of the body resistance, and he believed that similar effects could be produced by arsenic, though they were perhaps not seen so frequently, as people were mostly rather cautious in the exhibition of this latter drug. He believed, however, that many cases of cerebrospinal syphilis following the extensive use of the arsenical preparations were due to this cause. The only way of conclusively proving the syphilitic nature of these lesions was to find the spirochæte in the affected tissues.

Dr. GRAHAM LITTLE said he did not regard this as Pityriasis rosea. He did not think it was, clinically, like it. He regarded it as a syphilide, not necessarily an early secondary syphilide. It was not much against this being syphilis that the patient should have a rash after having these injections. He had intended

bringing to-day a very difficult case of a syphilide in a woman who had had syphilis twenty years, and had lesions of it all that time. She had had continuous and effective treatment, yet apparently it had made no impression on the rash.

Dr. A. Eddowes said he believed that when a remedy failed at first after a fairly good dosage had been given, it was useless to go on with small doses afterwards. He thought the colour of some of these patches was due to arsenic.

Dr. S. E. Dore said he agreed with previous speakers in regarding this case as syphilitic rather than as Pityriasis rosea. He did not think there was any impossibility in this type of eruption occurring so long after the initial syphilis; the more one saw of syphilis the more difficult it was to date the eruption. It was possible that when these arsenical preparations were given the eruption might be postponed, and what was generally an early eruption might occur later when treatment was stopped. This patient had had a large total quantity of arsenobenzol, and over-treatment might lower the patient's resistance, but he had never seen a relapse so soon after such thorough treatment as this.

Dr. F. Parkes Weber remarked that part of the cutaneous condition in this case was follicular, and it was possible that in the chronic follicular types of cutaneous eruption which occurred in the secondary and the tertiary stages of syphilis the spirochætes became in some way protected by the hair-follicles and sebaceous glands.

Dr. Pringle was of the opinion that this case was morphologically a characteristic grouped small follicular syphilide, and he could formulate no alternative diagnosis. As to its occurrence at this period of the disease and after treatment of such intense character and long-continued duration, he could only say we had all seen the occasional persistence of syphilis under every form of treatment, ancient and modern. Only in the last month he had observed two cases of recurrent syphilides of a type whith we would call "secondary," in men who had been treated for two years with all the intensity of mercurial and arsenical administration at our command. They had been treated in France and in this country with salvarsan, neo-salvarsan, and galyl intravenously, and persistently with mercury intramuscularly, yet they still had active syphilis, and neither was a cachectic individual.

Dr. George Pernet showed a case of *acute generalised Lichen planus treated by lumbar puncture*. The patient, a thin, ill-nourished woman, aged 54 years, was first seen by him at the West London Hospital on March 22nd, 1918. The duration of the disease was two months. It began on the arms and spread quickly to neck, back, and body generally, and then to the legs. She described the irritation as "dreadful," allowing of no sleep night or day. She was admitted as an in-patient on March 26th, and a lumbar puncture was carried out the same day (8 c.c. of cerebro-spinal fluid having been removed, though 6 c.c. was sufficient), and reported on as follows: No lymphocytosis; Fehling reaction present.* The results, *qua* severe pruritus,

* *Vide* Pernet, *Ann. de Derm.*, 1913 and 1916.

were very good, as was usual, and the rash itself became pale and began to involute. Whilst in hospital the patient was on mist. sacchar. usti, but was now having a mist. hyd. biniod. to follow up the effects of the lumbar puncture.

This was the third case of acute Lichen planus treated by lumbar puncture he had had at the West London Hospital (all women) with good results,* and following in the footsteps of Thibierge and Ravaut.

Dr. PRINGLE said the case was a typical Lichen planus, and he asked the experience of Fellows present as to the utility of lumbar puncture in this disease. He had had the procedure carried out several times and the immediate result had almost always been satisfactory, the relief to the itching having been great and gratifying. But after a few days it had usually recurred, and he had never considered a second puncture advisable.

Dr. J. L. BUNCH said he had had only one such case, and although the puncture relieved the irritation very considerably, he did not think there was any benefit to the rash: any improvement in the rash he attributed to other measures. When he was working in Paris, Thibierge was using this method in all his Lichen planus cases, and as his object was to relieve the itching, he repeated it, and with some success. He thought he had always trusted to external treatment to cure the rash.

Dr. F. PARKES WEBER remarked that in this case the correct explanation might be that the lumbar puncture was the turning-point, because it gave the patient, who had been worn out by intense cutaneous irritation and sleepless nights, a few nights' good rest. The nervous system had undoubtedly much to do with the course of, and recovery from, Lichen planus, and in the present case a few nights' rest and cessation of the itching probably assisted the ordinary remedies in improving the cutaneous condition.

Dr. G. W. SEQUEIRA exhibited three cases of *Fibroma molluscum* in a man, aged 39 years, and his two sons, aged 11 and 8 years respectively. The father stated that he had had the "lumps" since he was aged 8 years, and they had continued to come out ever since. The two boys were said to have had them since birth. There were two other children, a girl, aged 5 years, and another boy, aged 20 months, but neither presented any signs of the disorder.

The father presented about the body and limbs a great number of rounded and pear-shaped tumours varying in size from a pin's head to a small tangerine orange. Some of the growths were pedunculated and others were flat masses embedded in the corium. As usual in these cases of Fibroma molluscum, the patient presented many

* One of the two other cases was shown at the Section of Dermatology, 1913 (*Brit. Journ. Derm.*, xxv, 1913, p. 261).

brownish pigmentary stains on the trunk. The tumours were quite painless, thus differing from the special type of multiple fibromata described by von Recklinghausen, which were made up of fibrous and nervous tissue-neurofibromata. There was no perceptible thickening of the nerves in the cases shown, which also differentiated them from neurofibromata.

The special interest in the present cases lay in the fact that the lesions in the two boys had yielded in a striking way to internal treatment. For the last two months they had been taking thyroid tablets in daily doses of $\frac{1}{2}$ gr., which in the elder boy had been recently increased to $\frac{3}{4}$ gr. The growths had now practically disappeared, and no fresh tumours had arisen. Fibrolysin had been advocated in these cases, but no special benefit from such treatment had been reported.

In a case shown by the late Dr. T. D. Savill at the Dermatological Society of Great Britain and Ireland in May, 1901, some of the tumours had been somewhat reduced in size by the local application of ethylate of sodium, which produced a cicatricial contraction of the cuticle.

On the whole, surgical intervention hitherto seemed to have been regarded as the only reliable method of dealing with these cases.

Up to the present time the father had not been subjected to any treatment.

Dr. G. W. Sequeira inquired if members thought that thyroid was likely to be successful in the father's case.

Dr. F. Parkes Weber thought that cautious treatment of the father with thyroid extract could do no possible harm, and might have good effects on the general condition of the patient. It was just possible that it might also diminish the molluscous fibromata—at least temporarily. Neither thyroid treatment nor fibrolysin could bring about any permanent cure. Any results in familial cases of this kind were of special interest, because of the certainty of the diagnosis when the condition occurred in several members of the same family. Both the children shown to-day had typical patches of cutaneous pigmentation. Thyroid treatment had been tried in some of these cases, but he could not remember that any striking results had been reported.

Dr. W. Knowsley Sibley brought a *case for diagnosis*. The patient was a Russian, aged 32 years, whom he had seen for the first time that afternoon: he was sent to him by a medical board. He was covered with folliculitis all over his body, with the exception of palms, soles and head and neck. He said he had had the condition for six

years on and off, and that it always came out in cold weather. On the front of the chest and in the intrascapular regions there was distinct pustulation. A fortnight ago he had had almost an identical case in a Russian subject, also sent from a recruiting board. He told him that it was the first attack he had had, and that it came out immediately after a hot bath. He presented typical folliculitis, and the skin areas between the hair-follicles were not inflamed. The condition of the skin, when he saw him, was intolerable, and he was obviously ill. He had had no lesions on the hands and feet nor on the head and neck. There was no special line of demarcation anywhere. He took him into hospital, and in a week the condition had more or less disappeared, and his skin presented a general desquamative condition. But the day before he was to leave the hospital the whole folliculitis broke out again. He cross-examined the nurse, but could get no information. As the eruption had again quieted down he left the hospital a few days afterwards. A week or two ago he was again sent to him, from another recruiting board, with a recurrence of the general folliculitis and pustulation all over the thighs, the same as this man now showed between the shoulders. In the other case he thought the man had taken a bath with some corrosive substance in it. But if that was the case he could not explain the escape of his feet and his hands.

Dr. BUNCH said that one of his patients had had an almost exactly similar condition to that in Dr. Sibley's case, and he, too, was a Russian, and a tailor, but no relation or neighbour of this patient

Dr. GRAY said he had seen quite recently at a military hospital two cases exactly like this, though not so intense. Both the patients were Russian Jews, and the sergeant-major there told him they had had eight previous cases, all having started with the men going to certain baths in the neighbourhood. This case of Dr. Sibley's was on the point of being called up, and the ten cases at the hospital were due for service abroad. He had not the least doubt that the condition was artificially produced in order to avoid service.

Dr. S. E. DORE said he was asked to see a similar case in a military hospital last week. The patient was a Polish Jew, and was covered with a pustular folliculitis which had occurred a few days after vaccination and a vapour bath. He denied having applied any irritant to his skin; but, in view of these other cases, it would be interesting to know if some caustic application such as croton oil or turpentine had been used. This was the second case they had had at this hospital.

Dr. F. PARKES WEBER felt convinced that the explanation was a different one from that suggested. He thought that the cause of the recurrence or exacerbation of the eruption in such cases was a traumatic one: that a hot-water bath,

and especially a vapour bath, combined with rubbing of the skin, re-infected the patient with micro-organisms which had become quiescent in the hair-follicles. He thought that he had also seen the condition occur locally in patients of his own after the prolonged application of wet fomentations to particular areas (for pains, etc.). Whether the fomentations were alkaline, or whether the fluid in the bath was akaline, did not affect his theory—namely, that the microbes might remain quiescent in the hair-follicles, and that in some may they might be stirred up and become active again, as the result of hot water or vapour ("Turkish") baths, and sweating, and the associated rubbing of the skin.

Dr. EDDOWES said that when he examined these lesions under a lens he found the hairs mostly excentric, suggesting that they started in the mouths of sweat-pores. He had seen a similar rash after three or four days' application of carbonate of soda. Did these men have a bath, and afterwards rub soda or some other alkali on the skin? And did this neutralise the contents of sweat-pores while the sebaceous and hair-follicles were protected by their own grease?

Dr. PRINGLE was of the opinion that the eruption was an obvious artefact and the case an extremely important one. The simultaneous observation of a considerable number of identical cases in Russian Jews, summoned to appear before tribunals for service, and always appearing after hot baths, was of curious and sinister significance.

MEETING held May 16th, 1918, Sir JAMES GALLOWAY, K.B.E., C.B., President of the Section, in the Chair.

The PRESIDENT demonstrated two cases of *punctate keratosis of the palms of the hands and soles of the feet occurring in cousins-german*, with histological and bibliographical notes by Dr. H. G. ADAMSON (see p. 123 of this issue).

Dr. J. M. H. MACLEOD showed a case of *Hodgkin's disease with prurigo*. The patient, aged 34 years, ten months ago began to suffer from spasmodic itching, especially about the lower extremities; prurigo like papules appeared later, chiefly on his thighs and legs. Two months later the glands in the axillæ, neck and groins began to enlarge progressively. When first seen he thought the eruption might be scabies. He was unable to detect a burrow or an acarus. Seeing the enlargement of his glands he thought the case was lymphadenoma associated with a pruriginous eruption. The blood-count was: Red blood-corpuscles, 5,200,000 per cubic millimetre; hæmoglobin, 80 per cent.; colour index, 0·78 per cent.; leucocytes, 9000 per cubic millimetre; polymorphonuclears, 52·50 per cent.; small lymphocytes, 30·50 per cent.; large lymphocytes, 4 per cent.; large hyalines, 7·25 per cent.; eosinophils, 5 per cent.; basophils,

0·75 per cent. A gland removed from the axillæ on microscopical section showed a simple glandular hyperplasia.

The PRESIDENT considered that one was justified in calling this case Hodgkin's disease. An interesting feature was the associated pruriginous skin-eruption.

Dr. E. G. GRAHAM LITTLE said he had reported a case of lymphadenoma with the late Dr. Lee Dickinson,* occurring in a youth with very numerous red and yellow cuticular pruriginous nodules. He died with generalised lymphadenoma. The cuticular tumours were of lymphatic structure; neither lymphocytosis nor myelocytosis existed. In the present case the eruption was obviously the result of scratching. The eruption, as such, was not characteristic of lymphadenoma but, as in his case, the pruritus was a symptom of lymphadenoma, while the eruption resulted from scratching. The French school regarded leukæmia and pseudoleukæmia as merely clinical types of the same disease, and it was unimportant whether the name applied was leukæmia or lymphadenoma, although the nature of the cell, whether lymphocytic or myelocytic, needed differentiation. (*Vide* Nicolan, *Annales de Dermatologie*, 1904, p. 754: "La leucémie et la pseudoleucémie, envisagées pendant longtemps comme deux espèces morbides distinctes, finiront part être reconnues par la majorité des auteurs, du moins en France, comme deux variétés d'une seule et même affection, la lymphadénie.")

Dr. F. PARKES WEBER said that this case was almost a repetition of one that he had just published jointly with Dr. Dove.† He differed from the views expressed by Dr. Graham Little, inasmuch as he regarded the typical skin-affection of Hodgkin's disease—*i. e.* lympho-granulomatosis—to be itching, which, in most cases, preceded the obvious enlargement of lymphatic glands. This pruritus was generally associated with a pruriginous eruption of papules. In fact one might speak of it as a prurigo, and the variety of Hodgkin's disease associated with such a pruriginous condition might be termed "Lympho-granulomatosis pruriginosa." In the case referred to by Dr. Graham Little there was certainly Leukæmia cutis present—*i. e.* a genuine nodular leukæmic infiltration of the skin, totally different from the prurigo-like eruption of lympho-granulomatosis. According to Dr. Little there was also pruritus, but was it sufficient to give rise to violent scratching of the skin and make the disease imitate scabies? In his case, and in several others, scabies was the diagnosis which had at first been made. The pruriginous eruption (or simple pruritus) which preceded the glandular enlargement in Lympho-granulomatosis pruriginosa might be regarded as a *pre-granulomatous* condition, analogous to the pre-mycotic (pre-granulomatous) eruptions of Mycosis fungoides.

The PRESIDENT agreed with Dr. Parkes Weber's differentiation. Leukæmia cutis must be differentiated from the eruption preceding the other clinical manifestations of Hodgkin's disease.

Dr. MACLEOD (in reply) said that this type of eruption was quite distinct from that which occurred in leukæmia. He recalled the remarkable case of Dr. Rolleston and Dr. Wilfrid Fox, in which leukæmia was associated with nodules

* *Brit. Journ. Derm.*, 1902, xiv, p. 219.

† Weber and Dove, "Pruritus in Hodgkin's Disease—Lympho-granulomatosis pruriginosa," *Brit. Journ. Derm.*, Lond., 1918, xxx, p. 15.

all over the skin, which were clinically and histologically different from t h prurigo papules in this case.

Dr. E. G. Graham Little showed a case of *Granuloma annulare*. The patient was a single woman, aged 40 years. The disease had existed for a year. The lesions were few and on the left hand. There were four well-defined rings about the area of a sixpence, made up of glistening white papules, on the knuckles, and on the thumb there were some discrete pearly nodules not yet ranged in ring formation. These were especially characteristic. He had pointed out that the substance of the ridge which formed the ring could be seen to be constituted by individual similar nodules, so that the ridge was not a homogeneous structure, but was really a series of minute elevations. Itching was present. In a previous paper he suggested that tuberculosis was a frequent family history in these cases, as in this instance, both on the paternal and maternal sides. The disease remained a rare condition, of very obscure causation.

Dr. W. Knowsley Sibley showed a case of *Mycosis fungoides*. The patient, aged 66 years, was a moulder in an oil-mill. There was no family history of skin-disease, and he had never been ill before. He had suffered for some years from dry skin with a varying degree of irritation on various parts of his body, attributed by him to working in a hot mill, since most of the men in the mill suffered similarly. Eighteen months ago the irritation became much worse, especially over the shoulders and dorsal region, and the skin became rough and thickened in places. More recently the distress, irritation and burning had become much worse, and there was profuse weeping of clear serum from some of the lesions. The greater part of the skin of the dorsal and lumbar regions now presented large areas of well-defined infiltration. Some were simply vascular pigmented lesions, others raised and corrugated. Lesions of a similar nature occurred in both flanks, spreading towards the abdomen; others were present on the calf of the right leg. The head and neck, upper limbs and left leg were free. The glands, especially in the right groin, were slightly enlarged. The Wassermann reaction in all dilutions was negative.

The patient stated that formerly he did not perspire even when very hot, but for the last eighteen months he had done so profusely, especially over the right side of his body. A week ago the exhibitor

gave him an X-ray treatment over three areas in the dorsal region, and the condition now was said to be more comfortable.

In a case he had a few years ago—a younger man with similar tumour formations on various parts of the body—a full dose of the rays always caused a tumour to disappear, and this was successfully applied to fresh tumours. That went on for a few weeks, and then the patient developed a severe sore throat, with enlargement of the tonsils. He diagnosed that he had a mycotic deposit in his tonsils. He never heard the end of the case. Had the effects of the rays dispersing the tumours anything to do with this?

Sections taken from the right lumbar region showed the stratum corneum appearing practically normal, and the stratum granulosum absent in places. The stratum mucosum was greatly thickened throughout the section, and the papillary processes were broadened and prolongating in different parts of the section. The dermis was composed of a mass of round cells and plasma-cells and a very large number of dilated blood-vessels, some of which exhibited red blood-cells.

The PRESIDENT remarked that Dr. Sibley had no doubt used the phrase "driving the tumours in" metaphorically, but there seemed to have been produced a toxæmia, which was very disastrous in its results. In Mycosis fungoides, speaking of outward and visible signs, experience seemed to favour the treatment by X-rays.

Dr. G. W. SEQUEIRA showed a case of *guttate morphœa—Striæ et maculæ atrophicæ*?. The patient, H. A—, a member of the W.A.A.C., had recently returned from France, where she had been in hospital for many weeks suffering from "debility." Last August she noticed some redness on the left side of her neck which was accompanied by irritation. Surrounding the neck, collar-like, there were a considerable number of sharply circumscribed pearly macules varying in size from that of a pin's head to that of a threepenny-piece, with a glistening, scar-like appearance, soft and silky to the touch, and giving the sensation to the finger of small holes in the skin. The epidermis over the macules was wrinkled; also irregular linear striæ were seen interspersed among the macules, mostly in parallel lines in the direction of the lines of cleavage. The striæ in this case seemed to be formed by the close union of the maculæ. The spots and streaks were somewhat depressed below the level of the surrounding skin. There were

similar lesions on the legs about the knee, lower part of the thigh, and the popliteal spaces, but in this region the malady appeared to be in an earlier stage of evolution, as small red papules could be seen arranged in groups, with an erythematous tinge around them, blanching upon pressure.

Previous observers had stated in similar cases that no subjective symptoms were usually present, but in the case shown a good deal of irritation accompanied the first appearance of the spots. That there was inflammation and infiltration preceding the atrophy was here evident, as in cases reported by Liveing, Duhring and others.

The toxins of tuberculosis and syphilis could be excluded in this patient.

Dr. Graham Little remarked that the excessive itching, the red spots which preceded the development of white patches and the distribution on the nape seemed to point very strongly to the diagnosis of atrophic Lichen planus. There was also at the present time an indeterminate papular eruption on the inner surface of both knees which resembled that of Lichen planus.

Dr. J. H. Stowers said that on the lower and outer aspect of the right thigh there were a few red, flat, shiny, angular papules, with a tendency to linear arrangement, and associated with itching. He regarded the case as one of Lichen planus atrophicus.

Dr. F. Parkes Weber expressed the opinion that this was a case of "white-spot disease," and was typical of it. He thought there was no so-called "linear atrophy" of the skin—a term which is generally reserved for *Striæ atrophicæ*, for which a still better name is *Striæ cutis distensæ*. In "white-spot disease" there was a pearly-white infiltration of the affected skin with some non-living material, and the favourite distribution of the change, about the neck, reminded one of the distribution of the diffuse superficial xanthoma, which sometimes occurred in advanced cases of obstructive jaundice. In both "white-spot disease" and in xanthoma there was infiltration of the affected skin with some non-living material. In the present case a few of the spots about the knee had the typical appearance of "white-spot disease," as those on the neck had.

Dr. H. G. Adamson regarded this as a case of "white-spot disease," otherwise Morphœa guttata. It began on the legs around the hair-follicles, and suggested Lichen planus, but he thought it was not Lichen planus atrophicus, because of the absence of atrophy. Here there was distinct infiltration.

Dr. S. E. Dore said that this was a typical case of "white-spot disease." He had shown two cases here some time ago with similar appearances. He had never seen the pearly-white lesions characterising this disease in association with typical Lichen planus papules. The fact that atrophy was the terminal stage of both had given rise to confusion with Lichen planus atrophicus and linear and macular atrophy.

Dr. Graham Little said that American writers who suggested the name "white-spot disease" themselves expressed doubt whether it represented an

entity or merely a phase of other diseases. Thus McKee and Wise say: "We believe all the recorded cases of 'white-spot disease' can be divided into two groups—namely, the Lichen planus group and the sclerodermic group." Stelwagon would add a third group. "Striæ et maculæ atrophicæ," in which there has been no antecedent Lichen planus or sclerodermia. He claimed that this case was an example of a phase of Lichen planus, and he saw no advantage in retaining the name "white-spot disease," which was redundant and confusing.

The PRESIDENT thought the case was one of guttate sclerodermia, or morphœa. The peculiar infiltration of the skin in this case differed from the atrophy which followed the atrophic form of Lichen planus.

MEETING held on June 20th, 1918, Dr. GRAHAM LITTLE in the Chair.

Dr. W. KNOWSLEY SIBLEY showed a case of *Lichen obtusus corneus* This single lady, aged 31 years, was engaged on the land milking cows; she asked if the papules on her fingers were due to her work. A papule first appeared on her left index finger six weeks ago; cowpox was suggested. The lesion soon became solid; other lesions have since appeared on the fingers. She had now three on the left hand and two on the right. They were diffuse, very hard, more or less circular, and conical. Some were glistening, and appeared to be solid corneous growths. At times they throbbed and burned, otherwise she had not had any irritation. The lesions were like the Lichen obtusus corneus on a case he showed in July, 1916. On one of her hands there was a scar, and at the edge of it there was what might be taken for a Lichen planus papule, but he was unable to detect any suspicious lichen lesions.

Dr. GEORGE PERNET showed a case of *pre-mycotic erythrodermia* (*early Mycosis fungoides*). The patient, a married woman, aged 40 years, was first seen by him on May 28th, 1918. She then gave a history of eczema of the legs and varicose veins four years previously. About a year ago the legs began to get red; the redness had spread to the thighs and trunk. In October, 1917, it involved the upper limbs and face. The main symptom had been, and was still, intense irritation all over.

When he saw her the upper and lower limbs were of a dull red, numb as they were now, glistening, and presenting marked lichenisation and quadrillation of the skin, with some general superficial infiltration, but no desquamation. The legs nearly up to the knees

exhibited a punctiform purpura; and about the lower third of the left leg there was an elongated white depigmented area, atrophic looking, with scattered islets of pigmentation at the upper border, and an irregular one in the pale area. The body generally and the face and scalp were reddened, but to a lesser degree than the limbs. Some secondary adenitis was present. Her father and mother were living, aged 70 and 69 years. The picture was that of a *femme rouge*. He ordered X-rays and an effervescing quinine mixture; one exposure only (left thigh) had been possible, but would be repeated. The patient had improved. Recently she had had one or two abscesses about the right breast and axillary region. In his opinion the case was one of the pre-mycotic erythrodermia of Mycosis fungoides.

Dr. KNOWSLEY SIBLEY said he was sceptical about this being pre-mycosis, because one saw so many cases which were diagnosed as being of that nature, although Mycosis fungoides was a rare condition. If they all got well, were we to attribute it to treatment or to an error of diagnosis? At present he had half-a-dozen of these cases of Cutis rouge under observation: he saw one that afternoon—an extraordinary condition, which the patient said had been present for two years. She had been in hospital for it for some months, and she was no better. Until there was a distinct localised infiltration of the skin he thought we should not speak of these cases as pre-mycosis.

The CHAIRMAN (Dr. LITTLE) agreed with Dr. Sibley that the diagnosis of pre-mycosis was much too frequently assumed, and he did not think the data here were convincing.

Dr. PERNET, in reply, said he could not agree that these cases were common. During the last six years at the West London Hospital this was practically the first case of the kind he had seen, although he dealt with a large number of patients. Further, Mycosis fungoides took many years to develop to the tumour stage.

Dr. GEORGE PERNET showed a case of *Dermatitis herpetiformis*. The patient, a lad, aged 17 years, was a baker working at night, the duration of illness four and a half years. He saw him first three weeks ago suffering from Dermatitis herpetiformis. The rash had improved under salicin, although the intense pruritus persisted. His occupation aggravated the condition, which called for rest in bed. Originally the grouped vesicles and vesicularly bordered lesions, on an erythematous ground, forming rings and segments and arabesques by coalescence all over the body, but chiefly about the seats of election—viz. the small of the back and the axillary folds—presented a perfect picture of the disease.

Dr. S. E. Dore showed a case of *Ichthyosis hystrix linearis of palms.* The patient, a woman, aged 62 years, had had these curious symmetrical, warty, pigmented streaks extending along the palms and fingers and on to the dorsal surfaces of the terminal phalanges of fingers for about one year. She stated that she had a small lesion of a similar type on the left thumb twenty-four years ago and this disappeared, but the condition was not present before that time. He thought there was not much to be done in the way of treatment. The cautery or very strong applications were to be avoided in a patient of this advanced age. He had prescribed unguent. acid. salicyl. B.P., applied after soaking the hands in hot water.

The Chairman remarked that the initiation of this disease at so advanced an age must be extremely rare; it was quite outside his experience.

Dr. J. H. Stowers considered the application of CO_2 and the subsequent use of salicylic acid plaster to be an appropriate treatment in the present stage of the disease.

Dr. S. E. Dore showed a case of (?) *miliary syphilide.* The patient came to him last October, with a good deal of redness and swelling of the nose, resembling simple rosacea. Subsequently ulceration took place and he diagnosed tuberculosis. X-rays were applied and some dermatitis resulted, the disease being considerably aggravated. A few weeks later a few papules appeared on the upper lip, followed by similar lesions on the cheeks. The Wassermann test was negative. Subsequently he developed this eruption on his body, and this the exhibitor regarded as a grouped miliary syphilide. He then had four injections of novarsenobenzol, but with no improvement in the lesions. He admitted that he had had a chancre thirty years ago, but it was a long time afterwards for an eruption of this type to develop.

Dr. J. H. Stowers supported the diagnosis of syphilis; he recommended a course of mercury and potassium iodide in increasing doses. If this failed the case was probably one of Tuberculosis cutis.

Dr. Gray said he felt convinced that this was a typical case of Lupus vulgaris, the rash on the body being a follicular tuberculide. This view was supported by the negative Wassermann and the failure to respond to the anti-syphilitic injections. He admitted that, given a follicular lesion like this without other evidence, it was not easy to decide between syphilis and tuberculosis.

The Chairman remarked that a patient he had proposed to show this afternoon had not come. His eruption was like the follicular rash seen in this man, and he was inclined to diagnose a follicular tuberculide in both cases. In his patient there was a long and well-established history of syphilis.

Dr. W. Knowsley Sibley showed a case of *angiokeratoma*. This case was shown and described at the March meeting of the Section* and referred for further investigation. He now had to report that his Wassermann was negative.

A series of sections which had been prepared from a lesion excised from the left thigh showed that the chief change occurred in the stratum mucosum, consisting of a well-formed hæmorrhagic cavernous space, which had its seat of origin in this layer. The covering of this space was composed of a thickened stratum corneum, the whole of the stratum granulosum, and a very thin layer of the stratum mucosum, the base of the space being formed by the remaining portion of the same.

On examination of its contents, it was found to be made up of red blood-cells, serum, fibrin and leucocytes. In some of the sections there was a distinct destruction of the base of the nodule, and a well-marked red blood-cell extravasation from the capillaries was seen to be taking place into the space itself. The only point of note was the presence of pigmentation, which was confined to the cells of the papillary layer. There was no change in the dermis or connective tissue, except a dilatation of the blood-vessels in this neighbourhood.

He had had the opportunity of examining a brother four years older, who had a similar condition of skin, but to a lesser degree. In this man, who was a soldier, the chief lesions were on the scrotum, the abdomen, and over the spinal processes, especially of the dorsal and lumbar regions. About the umbilicus a crop of larger lesions were to be seen, partially filling up the depression, and exhibiting small pedunculated vascular tumours. Scattered lesions were present on his left forearm, and a few on the fingers, palm and wrist of this side. Many were present on the buccal mucosa of the lower lip and at the junction of the lip and upper jaw in front. One on the side of the left hand had rather a keratomatous character. This patient also suffered from chronic rheumatic pains, especially of the fingers, and from chilblains in cold weather. He had been rather deaf since having diphtheria at the age of eight, with occasional discharge from the left ear. The skin-lesions were first noticed after this illness.

* *Proceedings*, p. 70.

Dr. E. G. Graham Little exhibited a case of *sporotrichosis*. The patient was shown by him as a possible case of sporotrichosis in March, 1917.* At that time sporothrix was not found, the case being recorded as chronic ulceration of the legs. The patient, a girl, aged about 14 years, had suffered from these ulcers for nearly four years, and had been under his care for continually recurring ulcerations of the type now seen. These arose with nodules, which speedily broke down and ulcerated, and the whole surface of both legs below the knee was scarred. The best treatment had been found to be considerable doses of potassium iodide. At the meeting in March, 1917, the diagnosis of Bazin's disease was suggested. In the past few weeks, however, definite proof of the presence of sporothrix had been forthcoming, Dr. John Matthews having grown the fungus from an unopened nodule.

Meeting held July 18th, 1918, Sir James Galloway, President of the Section, in the Chair.

Dr. J. H. Stowers showed a *case for diagnosis*. The patient, a male, aged 53 years, married, was a clerk in a railway company's office. He lived under favourable conditions, and his general health was satisfactory. The eruption commenced upon the outer part of the right thigh six years ago, and in a few months was followed by similar developments on both thighs and legs, upper arms, forearms and hands, including the fingers. Small papulo-tubercular elevations were also present upon the abdomen and back, including the buttocks. The original lesions were bluish-purple, subsequently assuming a yellow tint resembling "bruises," being followed by severe structural alterations. They had recurred in crops at intervals. Both the forearms and hands were much swollen. The surfaces now presented innumerable clusters of indurated papules, some having slight central depressions and tubercles, with deep pigmentary stainings and cicatrices due to the persistent necrotic action. Extensive uneven scarring and numerous irregular ulcers of limited size existed upon the discoloured and infiltrated skin. The clusters of agglomerated tubercles on the arms and legs were numerous, and with the corresponding œdema produced much swelling of the limbs, not unlike the appear-

* *Brit. Journ. Derm.*, 1917, xxix, p. 125.

ance of Bazin's Erythema induratum of severe type. No tuberculous glands were discoverable. There was no itching, but burning and pricking sensations interfering with sleep. Except for twelve months spent in New York the patient had lived in England. No family history of tuberculosis or similar affection existed. He was not syphilitic.

Dr. J. J. PRINGLE said he looked upon the lesions as multiple examples of Tuberculosis cutis. He had at present a counterpart of this case in hospital, in a woman of about the same age, who had similar lesions, but in a very exaggerated degree. The disease was of several years' duration. In her case the diagnosis was definite; he confirmed it in a very unfortunate manner—by giving her a test-dosè of tuberculin when she first came under his observation two or three years ago. There had been probably a slight error in the dosage of the tuberculin given. She had had a very violent local and general reaction, her life being placed in great danger. It was a very peculiar and interesting fact that these very extensive cases of multiple cutaneous tuberculoses were frequently unaccompanied by clinical evidence of any internal development of tubercle, the general good health of the patients being maintained for a long time.

Dr. S. E. DORE suggested that this was a case of Urticaria pigmentosa in an adult. The lesions seemed to be of the nature of œdematous papules rather than solid nodules. Absence of itching did not necessarily exclude Urticaria pigmentosa.

The PRESIDENT said he thought that, if there were alternatives to the diagnosis suggested by Dr. Pringle, Dr. Dore's was the most probable. There was the possibility of its being an unusual leukæmic manifestation, and that had to be excluded, and it was not always easy to do so, even by blood examinations, because in early and chronic leukæmia the blood examination did not by any means give an absolute diagnosis, as the condition of the blood varied. One or two points were rather against this being a tuberculide: the vascularity of some of the lesions; in the place where the lesions were most numerous there was only slight evidence of necrosis of the areas suggested to be tuberculous. It was true there was scarring on the lower extremities, but this was common, and in this patient was larger than one would expect from the type of lesion. The third point was the pigmentation, largely unexplained by the diagnosis of its being a tuberculide. The chronicity fitted in with the diagnosis of a tuberculide. There was something in favour of Dr. Dore's suggestion, and this would quickly be evident on histological examination.

Dr. STOWERS (in reply) said that his first impression of this patient—and he had only had a limited time to examine him—was that it was of a more serious nature, more so than Dr. Pringle's remarks implied. He suspected the possibility of a developing sarcoma, although he admitted it did not conform with our usual experience of such a disease. He thought it might belong to the class known as "tuberculides," but as the patient was aged 53 years and the duration did not exceed six years he was doubtful. If Dr. Pringle's views were correct, then he could not remember seeing so late a manifestation as this. He accepted his view, as it fitted in with the clinical aspect better than his own. Still, the

case required further investigation. The urine was normal, and the Wassermann test completely negative. Nodules had been removed for histological and bacteriological examination and further report.

Dr. George Pernet showed a severe case of *tertiary syphilis of the scalp and face.* The patient, a housewife, was aged 63 years, and the duration of the disease was seven years. It began on the top of the head and above the right ear, and had gradually spread forward ever since over the greater part of the face, as shown in the photograph taken when first seen by him. There was much scarring of the anterior part of the scalp and face, and the borders of the serpiginous involvement were ulcerated and crusted, as also the ears. She had never had any treatment except fomentations and ointments. He diagnosed tertiary syphilis, and put her on pot. iodide, and she improved, but it had to be stopped after five or six days, as it led to a profuse bullous iodide eruption about the arms, and to a less extent on the back. Since then she had had Donovan's solution, and was decidedly improving. She had had ten children: seven were living, three died in childhood. The last child was living and aged 18 years. No miscarriages.

Dr. H. G. Adamson said he thought this was a tertiary syphilide: it was quite possible to have a syphilide as superficial as that. It was too rapid for lupus, and it was unusual for a person of her age to get such extensive lupus. An injection of N.A.B. or galyl would settle the diagnosis.

Dr. J. J. Pringle thought that Dr. Pernet had not definitely established that the condition was due to syphilis. First, there had been no blood test, which in cases of dubious diagnosis was a matter of capital importance. Secondly, there was no history of syphilis. Thirdly, this woman had had ten healthy children, and there was nothing else suggestive of syphilis elsewhere about her; the lesion itself gave no conclusive evidence of syphilis. There were many reasons against it being syphilis, and in favour of the forms of senile tuberculosis of the skin—namely, that type of Lupus vulgaris which was described many years ago by Leloir, of Lille, as *Lupus vulgaris erythematoides*, a disease of advanced life, often attacking or beginning on the scalp. It was a rare but quite definite form. This woman presented typical destruction of the pinnæ of both ears, and there were none of the deep lesions which occurred in tertiary syphilitic ulcerations, but a thin superficial "tissue-papery" scar, in which he thought he could detect some nodules such as characteristically result in cases of the type of lupus he had referred to.

Dr. MacLeod said he thought at first this was of the type referred to by Dr Pringle—namely, Lupus erythematoides of Leloir, that is, a superficial variety of Lupus vulgaris: but on further examination he regarded it as a tertiary syphilide, as he had never seen Lupus vulgaris commence on the scalp.

The President remarked that the difference of views expressed showed that

TO ILLUSTRATE DR. J. J. PRINGLE'S CASE FOR DIAGNOSIS.

a good deal remained to be done to make the diagnosis as clear and distinct as possible. He agreed rather with what Dr. MacLeod had said. At his first glance he rather felt, knowing very well some of the cases Dr. Pringle described, that this was a case of the erythematoid type of Lupus vulgaris, described by Leloir, but the duration was a very important point in favour of it being a superficial syphilide.

Dr. PERNET (in reply) said he had not found any other evidence of syphilis in the case. There had been no miscarriages. The blood of the patient had not been tested, but he thought a blood test unnecessary. He should rely rather on clinical knowledge than on a blood test, which might be fallacious. He thought it was not Lupus vulgaris, since it was rare for that condition to affect the scalp at all, except by extension from the face and for other reasons. The duration of the case was one of the leading features which made him exclude Lupus vulgaris. As to the *Lupus vulgaris erythematoides* of Leloir, which must be differentiated from Lupus erythematosus, it was of very rare occurrence. He could not agree with Dr. Pringle that it *frequently* began on the scalp. As far as he recollected from Leloir's description it did not begin on the scalp, and did not ulcerate. He would have a blood test of the case carried out, and report further as to the upshot of that and more energetic treatment.

Addendum.—July 19th, 1918: Wassermann negative. July 27th: Intravenous novarsenobillon, 0·15. August 3rd: Wassermann, very weak positive. August 17th: Intravenous novarsenobillon, 0·15. August 24th: Wassermann, weak positive.

Dr. J. J. PRINGLE exhibited a *case for diagnosis: possibly an early case of the "miscalled" multiple idiopathic hæmorrhagic sarcoma of Kaposi.* The patient was an Englishman, aged 28 years, by trade a glass refiner, and resident in the East End of London. Before he came to the Middlesex Hospital on June 18th he had been under hospital treatment elsewhere for two years. The lesions appeared on the dorsum of his right foot four years ago. These were followed by "spots" below the internal malleolus on the same side, and shortly afterwards by similar lesions on the dorsum of the left foot, which have coalesced to form a deep purple hæmorrhagic patch. He had extreme pain. After a fortnight in bed he got much better, and resumed work. He had to return to the hospital in another three weeks. On June 28th he noticed a new development, which the exhibitor believed to be of the utmost importance as regards the diagnosis of the case—namely, on the dorsum of the second, third and fourth toes of the left foot there were prominent soft, purple vascular enlargements, about the size of peas, which bled very freely, and showed some superficial erosion, probably due to sepsis. On some previous occasion he had had an ulcerative condition of the left sole, which had recovered. The exhibitor placed great importance upon

these vascular lesions, as possibly giving the keynote to the diagnosis. They might still be seen, although the case had been altered by having him X-rayed, for since then these vascular growths had become trifling in size. He had, however, a few raised vascular lesions on the dorsum of the second toe of the left foot, which were, he thought, coalescing to form lesions like those which had been destroyed by the X-ray. He was a very thin, delicate man, but without any physical evidence of disease elsewhere. He suggested the possibility of it being a very early case of so-called hæmorrhagic multiple sarcoma of Kaposi. In partial support of that vague view was the fact that the highly vascular lesions had subsided under the X-rays. This happening had been very strikingly brought out by Dr. Sequeira's experience, some early cases of the rare condition mentioned having been under his observation, and a few of these had shown improvement beyond expectation.

The PRESIDENT said that the latest manifestation, in the form of those little pulpy tumours, was exceedingly suggestive. He would draw attention to the manifestations of a vascular nature, almost as if they had been purpuric lesions, occurring before the appearance of the tumours. That, as an initial stage of the pigmented sarcoma, one knew little about. It was interesting to observe how the vascular lesions in this man's case appeared largely in the regions where one was so accustomed to finding purpuric manifestations in cases of vascular trouble, owing chiefly to static conditions in the lower extremities—namely, the parts which one was accustomed to look upon as areas of weak circulation, namely, behind the internal and external malleoli. Vascular lesions which often became inflammatory in consequence of damage to skin one saw frequently in such positions. The appearance of the malady on the extremity, involving the toes, was a little different. But if this turned out to be, as Dr. Pringle suggested, the Kaposi type of pigmented sarcoma, it would be an interesting point in the development of the case to remember that the early type of vascular purpuric lesion appeared in those places which one regards as *loci minoris resistentiæ*, so far as the circulation was concerned, in the lower extremities. Dr. Pringle had not given us histological evidence concerning the little growths, but we should be glad to have that later on. He thought at first that this was of the nature of septic granuloma on the toe, but it did not look like that. It was not suppurating now. It looked almost as if it were a true granulomatous lesion of the Kaposi type.

Dr. S. E. DORE thought the small vascular growths on the toes and feet suggested the possibility of the case being one of angiokeratoma, and he would like to ask Dr. Pringle, who saw the condition before the X-rays were applied, if he could exclude that disease.

Dr. PRINGLE (in reply) said that the possibility of angiokeratoma had passed through his mind. The localisation of a few of the lesions on the toes was identical with that of angiokeratoma, but the tumours were pulpy, soft, and

elastic, with no keratoma, and not like the tumours of angiokeratoma. He would be glad to furnish histological sections if opportunity occurred.

Dr. J. M. H. MacLeod brought a case of *grouped comedones in an infant*. This was the most extensive example of grouped comedones he had seen. The neck and upper part of the back and chest were affected, and presented large groups of comedones, which here and there, owing to secondary infection, were situated on a raised red granulomatous base dotted over with small pustules. It was due to the rubbing on the chest of camphorated oil for the relief of symptoms following broncho-pneumonia.

Dr. MacLeod (in reply to remarks) said he knew of no particular method of hastening a cure. It was important to refrain from the use of greasy applications in such cases, and he considered that the best treatment was soap and water and boric acid fomentations.

Dr. J. H. Stowers showed a case of *Erythema multiforme perstans*. The ailment had existed for a period of fifteen months. The patient, a munition worker, aged 26 years, married, with one child, stated that the eruption commenced over the upper part of the sternum, and, later, at short intervals involved the right upper eyelid and brow, the right and left cheeks and both forearms. The rest of the body was free. The general health of the patient was good. Some years ago she was the subject of rheumatic fever without complications. The lesions were pink, distinctly elevated, with abrupt edges in parts where the infiltration was being absorbed, and fading off in degree and colour towards normal skin, producing an urticarial appearance. The largest lesions were distinctly circular, or segments of circles, with hard raised borders, and slightly tender on pressure. They did not leave scars. The lower part of the body was wholly unaffected. There was no itching, but a throbbing sensation disturbed her at night. The patient had within the last year suffered from an acute Herpes zoster on the left side which had cleared up, leaving the usual pigmentations and scars. The woman stated that the present disorder developed while she was working with a powder known as "T.N.T.," and subsequently with "tetryl," composed of nitrate of ammonia and methyl aniline, and to this her ailment had been attributed. Also that two of her fellow-workers developed a similar eruption.

His first impression was that it was artefact, but the entire absence of vesication and serous exudation excluded this view. The lesions did not correspond with Herpes iris; the persistence of the eruption was inconsistent with this view. He showed the case as one of Erythema multiforme perstans with an unusual distribution which was known to remain for months, and in rare instances even for years, and eventually to undergo spontaneous resolution.

No drugs had been administered internally which would bring the case into the category of a Dermatitis medicamentosa. He regarded the cause to be probably a general toxæmia and possibly of intestinal origin.

Since exhibiting this patient, his attention had been kindly directed by Dr. Adamson to cases of a similar character reported in the *British Journal of Dermatology* by Dr. Graham Little, Dr. A. M. H. Gray, and Dr. H. MacCormac, in vols. xxiv, xxv, and xxvii respectively.

Dr. H. G. Adamson said this case added another to a series we had had before us, which in discussion we concluded were a type of "persistent Erythema multiforme." In some cases they were on the wrists, in others on the face, and in some on the knee. We could exclude artefact; it was not sufficiently artificial. These cases improved under salicylates. There was another type of fixed erythema, which Dr. Colcott Fox described "persistent circinate erythema," which was not quite the same—not necessarily symmetrical, and not in such raised hard rings. One or two lesions on the face of this girl looked like Lupus erythematosus: it was so, too, in one of the cases shown before. There might be a relationship between the two conditions.

Dr. Graham Little said that Dr. Adamson had referred to the case shown by him. He observed this patient for four years, and one of the chief symptoms was the remarkable duration of individual lesions. We were not told whether the actual lesions in this case had a similar persistence, and this was of cardinal importance in diagnosis. The case had been compared with Dr. Colcott Fox's cases of circinate erythema recorded in the *International Atlas of Rare Skin Diseases*. These cases were probably instances of Dermatitis herpetiformis, as tentatively suggested by Dr. Colcott Fox himself, and as Darier had independently suggested. He had had a case similar to these, which he reported as an instance of Darier's Erythème circulaire centrifuge, but which eventually developed into a typical Dermatitis herpetiformis. This might also be the diagnosis in this case, which clearly called for further investigation and report.

The President was of the opinion that appearance and distribution of the eruption, and the way in which it healed, suggested an artefact element: and unless Dr. Stowers had stated that he had excluded every possibility of it being artefact, that would have been his diagnosis.

Dr. Stowers (in reply) said he adhered to his conclusions. He did not exclude

the possibility of artefacta until he had considered the point very closely. As to the duration of the individual lesions in this case, he could not speak from personal observation.

CURRENT LITERATURE.

INFLAMMATIONS.

FOLLICULITIS ULERYTHEMA RETICULATA. G. M. MacKee. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 339.)

In this contribution are reported two cases which were characterised by the presence on the cheeks of closely-crowded irregular areas of atrophy separated by narrow ridges.

Case 1 was that of a girl, aged 16 years. The eruption was limited to, and symmetrically distributed over, the greater part of both cheeks. The individual atrophic areas were pit-like, about 1 mm. in depth, and irregular in size and shape. There were a few comedones both on the depressed areas and on the ridges, and also a number of milium bodies and follicular horny plugs. The skin covering the ridges was shiny, waxy, and stretched, and harder than the normal skin. The entire area was erythematous, the depressions being redder than the ridges.

Case 2 was that of a boy, aged 9 years. In him the eruption was similar to that in Case 1, except that the number of comedones was larger, while there were fewer milium bodies.

Histologically it was found that the atrophy was due to a degeneration of collagen, but whether the degeneration was secondary to œdema and circulatory disturbances caused by pressure, or whether the inflammation preceded the follicular changes, was not ascertained. The possibility was suggested, however, that some of the depressions were due to large double comedones.

Cases of a similar character have been described under various headings, such as "Cutaneous atrophy with comedo" (Whitfield), "Atropho-dermia reticulata symmetrica faciei" (Pernet), "Atrophia maculosa varioliformis cutis" (Heidingsfeld), "Ulerythema acneiforme" (Unna), "Acne vermoullante" (Thibierge).

J. M. H. M.

PATHOLOGY.

THE SO-CALLED POROKERATOSIS (MIBELLI), WITH SPECIAL REFERENCE TO ITS HISTOPATHOLOGY. Shin-ichi Matsumoto. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 379.)

In this paper the author reviews the reported cases of this comparatively rare disease, and describes a histological research which he carried out in more than thirty primary efflorescences of it.

Mibelli, who originally described it, considered that it was essentially a keratosis of the sweat-orifices, probably beginning in the sweat-ducts and implicating the orifices by peripheral extension. The present research went to show that the follicular hyperkeratosis, though well marked in the majority of cases, was not

a constant occurrence, and that the openings of the pilo-sebaceous follicles and the other parts of the epithelial surface might be similarly implicated.

J. M. H. M.

ERYTHEMA NODOSUM. Prof. Marfan, M.D. (*Med. Press*, July 3rd, 1918, p. 6.)

The writer points out that Erythema nodosum was formerly classed among the rheumatic eruptions with polymorphous erythema and rheumatoid purpura. These two conditions are now recognised as constituting two distinct and separate groups, and Erythema nodosum has been shown to be a disease standing in some sort of relationship to an acute outbreak of pulmonary tuberculosis. Erythema nodosum occurs only in tuberculous subjects, usually in those in whom the infection is still latent. It is the outward and visible manifestation of slight, attenuated, curable tuberculosis, and is of bacillary origin. Experimental observation confirms this. The inoculation of fragments of the erythematous tissue in animals rendered them tuberculous, and the histological structure is that of typical "tubercles." The cuti-reaction is positive in these subjects, and the formation of an exactly similar nodule can be provoked by injecting a minute quantity of diluted tuberculin into the dermis. Erythema nodosum is, then, a bacillæmia which can, of course, be recovered from, but which is none the less an outbreak of bacillary infection, and must be treated as such. S. E. D.

PHARMACOLOGY.

CASTOR OIL. D. W. Montgomery. (*Journ Cut. Dis.*, 1918, xxxvi. p. 446.)

In this note the writer refers to the value of castor oil in dermatology, owing to its peculiarity of being soluble in alcohol and in facilitating the solution of salicylic acid in oils and ointments.

He points out an interesting incompatibility in a lotion which may be prescribed containing spirits of camphor with the following formula.

Sulphuris precipitatæ	1 drm.
Olei ricini	1 „
Spirit of camphor	½ oz.
Water	to 4 „

This will form a spongy-like mass which is absolutely useless as a lotion, but this will not occur if enough alcohol is added to take up all the oil.

J. M. H. M.

NEW GROWTHS.

RODENT ULCER. Wallace Beatty, M.D. (*The Dublin Journ. of Med. Sci.*, June 1st, 1918, p. 329.)

In this communication the writer discusses the pathology, clinical affinities and treatment of rodent ulcer. He makes the suggestion that rodent ulcer is of nævus origin, using the word "nævus" in its broadest sense. This theory would explain the extreme chronicity and the unusual character of the cells as compared with those of an ordinary epithelioma. In soft moles columns of cells more or less broken up by collagen fibres are seen, and these have been shown to be derived

from the surface epithelium, but have lost their prickles. According to this view, rodent ulcer would be an epithelial growth, starting from a microscopic soft nævus, present at birth and developing later, its reticular form being due to the presence of fully formed connective tissue, the columns of cells making their way as best they can. The writer further suggests that the streams and columns of cells in soft nævi may be abortive supernumerary sweat-glands, and that there might be a transition to hidradenoma, and to rodent ulcer, and to Epithelioma adenoides cysticum. In this case rodent ulcer would be a nævus of the sweat-glands. S. E. D.

OSSIFICATION IN A CASE OF SCLERODERMIA. S. Pollitzer. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 271.)

A few cases of true osteoma in the skin have been described; these have possibly been due to embryonal rests. In this contribution the writer reports a case of sclerodermia in a middle-aged man in which the face was affected. Four ulcers developed on the sclerodermic area, in the floor of which a bone-like material formed. Histologically it was found that the connective-tissue fibres had become calcified in patches over the sclerodermic area, and that the calcified patches had in places undergone ossification. The ulcerations were due to the calcareous tissue breaking through the epidermis. J. M. H. M.

TREATMENT.

CHEILITIS EXFOLIATIVA. D. W. Montgomery. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 363.)

The author here describes the treatment by radium of a typical case of this obstinate manifestation of seborrhoic dermatitis. It occurred in a woman, aged 36 years, and had been previously treated with caustic, X-rays, and carbon dioxide snow without amelioration.

A radium plaque, the size of a 10-cent. piece, containing 24·23 mg. screened with 0·01 mm. aluminium, was applied for ten minutes, which caused a reaction in a few days. Eight days later a 25 mg. radium capsule shielded with 0·35 mm. silver and 0·75 mm. brass, was laid over the crust for ten minutes, and in three days brought on a violent reaction and swelling of the lip. When the reaction subsided the centre of the lip had stopped peeling, and the infiltration had disappeared. Subsequent exposures were given, with the result that only two minute loosely adherent linear crusts were left at the right extremity of the original lesion, and these were cleared off by lightly wiping with trichloracetic acid.

The writer does not believe that the condition could have been cured by treatment other than radium. J. M. H. M.

THE TREATMENT OF DERMATITIS VENENATA BY VEGETABLE TOXINS. A. Strickler. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 327.)

This communication describes a series of experiments which were undertaken with the object of explaining certain factors connected with Dermatitis venenata, namely:

(1) The elaboration of an endermic test, by which to tell to which one of the poisonous plants the particular individual was susceptible.

(2) To determine whether the intramuscular injection of the vegetable toxin derived from the homologous poisonous plants would influence the course of Dermatitis venenata.

(3) To determine whether it is possible to de-sensitise individuals against Dermatitis venenata by the intramuscular injections of the homologous vegetable toxin; the number of injections necessary for the process of de-sensitisation, and how long such a protection would last.

(4) To determine whether complement-fixing bodies could be found in the serums of patients who had had an attack of Dermatitis venenata and had been treated by the injection of the homologous vegetable toxins.

Twelve patients were experimented upon.

The technique consisted in the injection of $\frac{1}{20}$ c.c. of glucosidal vegetable toxic solutions of various poison plants, such as ivy, sumach, and nettle. A tentative reading was made twenty-four hours after the injection, and a final reading in forty-eight hours. Vegetable toxins which were positive, and produced a definite local reaction in the form of a papule, erythema, or tenderness at the point of injection, were used in the form of intramuscular injections for purposes of treatment and de-sensitisation.

As a result of these experiments the writer comes to the following conclusions:

(1) That the intramuscular administration of the toxin of various poisonous plants has an influence on the course of Dermatitis venenata, and may be employed in extremely severe cases, or where it is desired to attempt de-sensitisation.

(2) That the immunity of Dermatitis venenata is a tissue immunity which is fleeting in character.

(3) That it is possible to develop an endermic test for the detection of the particular poisonous plant to which the individual is susceptible.

(4) That it is possible to de-sensitise individuals against Dermatitis venenata.

J. M. H. M.

SYPHILIS.

CONCERNING BRUCK'S NITRIC ACID REACTION WITH SERUM AND CEREBROSPINAL FLUID IN SYPHILIS. Ikuzo Toyama and J. A. Kolmer. (*Journ. Cut Dis.*, 1918, xxxvi, p. 429.)

Bruck's reaction is a simple chemical reaction in syphilis, which he believes may be due to the same changes in the serum as are responsible for the phenomenon of complement-fixation, and may prove of value in conjunction with the Wassermann reaction as a specific aid in the diagnosis of syphilis.

The technique is based on the experimental observation that the precipitate formed from the serum of a syphilitic on the addition of nitric acid does not dissolve in distilled water as readily and as completely as the precipitate formed with normal or non-syphilitic serum. With about 200 syphilitic serums, Bruck found that his test yielded the same results as observed with the Wassermann reaction.

The writers of this paper have applied Bruck's test with the serums of 100 persons, and describe in detail the technique they employed.

The following is a summary of their results:

(1) Wassermann and Bruck tests with ninety-four serums (the Bruck tests being conducted with fresh active serums) yielded similar results with sixty-five serums, or about 70 per cent. All of the positive reactions with both tests occurred with the serums of persons manifesting the lesions of the secondary and tertiary stages of syphilis and undergoing treatment with arsphenamin (arsenobenzol of the Dermatological Research Laboratories).

(2) With the serums of twenty-three persons, or about 25 per cent., the Wassermann tests were negative and the Bruck tests positive; eight of these serums were from persons regarded as non-syphilitic, and the balance (fifteen) from persons in the secondary and tertiary stages of syphilis undergoing vigorous treatment with arsphenamin, and yielding positive Wassermann reactions on admission to the clinic and prior to the time when Bruck tests were made. According to these results, therefore, the Bruck test was found to yield presumably about 8 per cent. falsely positive reactions; also that the property of syphilitic serum responsible for the Bruck test probably persists under treatment for a longer period than the reagin or Wassermann antibody.

(3) With the serum of six persons, or about 6 per cent., the Wassermann tests were positive and the Bruck tests regarded as negative; all of these serums were from persons presenting the lesions of the secondary and tertiary stages of syphilis on entering the clinic and undergoing active treatment with arsphenamin

(4) The results of Bruck tests conducted with eighty-nine serums in the fresh active state and again after inactivation (heating) showed similar results in 85 per cent.; in 13 per cent. the reactions were positive with active and negative with inactive serum; all serums were from cases of secondary and tertiary syphilis undergoing treatment. It would appear, therefore, that active serum is better adapted for the Bruck test than inactivated serum.

(5) Preliminary and final readings of the Bruck test agreed in 94 per cent. of serums; with 6 per cent. of serums the reaction was read as positive in the preliminary and negative in the final reading. These serums were from persons in the secondary stage of syphilis and undergoing vigorous treatment; it would appear, therefore, that the precipitate yielding a positive result in the preliminary reading may dissolve overnight, and thereby render a negative result in the final reading. For this reason the preliminary reading is considered more delicate, but more difficult to interpret and differentiate from the opalescent reactions sometimes yielded by normal serum.

(6) Bruck tests conducted with cerebrospinal fluids in amounts ranging from 0·5 to 2 c.c. were invariably negative irrespective of the source of fluid, as from normal persons or those suffering with syphilis of the central nervous system and suppurative meningitis; owing to the relatively small amount employed, and from inflamed meninges, as compared with serum, the Bruck test is worthless as an aid in diagnosis.

(7) While the Bruck sero-chemical test is very simple, of great interest theoretically, and probably of more value than the numerous other physico-chemical tests of Porges and Meier, Klausner, Herman and Perutz, and others, the reactions are less well defined and more difficult to read and more prone to error on the personal equation than the Wassermann reaction, and, likewise,

probably less delicate and valuable as a diagnostic reaction than the Wassermann test when the latter is properly conducted by experienced persons.

J. M. H. M.

ANIMAL PARASITES.

ON THE HABITAT OF THE BODY-LOUSE AND THE RAPID DIAGNOSIS OF PEDICULOSIS. H. Bulliard. (*Annales de Dermatologie et de Syphiligraphie*, 1916–17, Tome vi, No. 10, July, 1917, p. 501.)

The classical view that *Pediculosis corporis* lives and breeds only in the clothes is not correct; it may also inhabit and lay its eggs in hairy regions of the body, more particularly in the pubic region. In nine cases out of ten in soldiers with any degree of *P. corporis* a rapid diagnosis may be effected by finding a louse or ova on the pubic hairs. The body-louse and the pubic louse are, of course, easily distinguished, but in the absence of a louse the macroscopical characters of the nits enable them to be readily differentiated. The ova of *Phthirius pubis* is blackish, oval, with greatest diameter at the upper third and pointed lower extremity, and, in proportion to its length, appears larger than that of the body-louse. The ova of the body-louse is greyish-white, and is always attached to the hair at an acute angle. But the numeration under the microscope of the cellules of the lid of the shell form the best means of diagnosis. The lid of the nit of the pubic louse shows in profile 7–9 cellules, and, "full face," 17–18; that of the body-louse shows in profile 4–6, and, "full face," 12–18 (an average of 15).

Bulliard finds that among dermatologists Brocq, Dubreuilh, Nicolas, and Gougerot have stated that *P. corporis* is exclusively vestimentary, and that among parasitologists Neveu-Lemaire, Guiart, Brumpt, and Guitel have expressed the same opinion, even recently. Writers who have noted the occurrence of the body-louse and nits on pubic or body hairs are Dubreuilh (1909), Delta, while studying the conditions of propogation of typhus (1915), Legroux (1915) Yogotte (1915), Lacassagne (1916), and Swellengrebel (1916) among French observers; and Brauer (1915) and Hare (1915) in Germany.

From a practical point of view the knowledge of this localisation is of considerable importance, since it calls for a minute disinfection of the body in all cases of pediculosis, and especially of hairy regions of the body. Prolonged soaping, followed by antiseptic ointments, camphorated oil, acetic perchloride, essential oils, are sufficient. In the Army shaving the hairs of the body avoids the possibility of some ova escaping the action of the parasiticide. Disinfection of the clothes by stoving retains its former value. H. G. A.

[*Parasitology* (Cambridge University Press), November, 1917, x, No. 1, contains, in pages 1–185, the following papers on *Pediculus humanus*, by Prof. G. H. F. Nuttall:

(1) "Bibliography of Pediculus and Phthirus, including Zoological and Medical Publications dealing with Human Lice, their Anatomy, Biology, Relation to Disease, etc., and Prophylactic Measures directed against them." This bibliography—the first of the kind hitherto published—enumerates 639 publications.

(2) "The Part played by the *P. humanus* in the Causation of Disease."

(3) "The Biology of *P. hominis*."

In the latter paper the author has the following remarks upon the distribution

of *P. corporis* upon the body: "Although, as previously stated, it has been denied that *corporis* may live upon the body and deposit its eggs upon human hair, there is clear evidence to the contrary. I am convinced that *nits will be found much more frequently upon the body hair if inspection is made less casually.* The nits upon the body hair are inconspicuous objects and may well escape notice. The matter is of considereble practical importance in its bearing on the efficacy of measures directed against lice, for the measures may be vitiated if lice and nits remaining on the body are not considered. I have seen *corporis* upon the hair of the breast and axilla." He then quotes Nysten (1858), that *corporis* oviposts on hair of chest and armpits; Girard (1885); Boral (1915), who states that Flusser shaves the pubis and axillæ of military patients because *corporis* nits occur there; Brauer (1915); and Müller (1915) in Austria. But it will, he says, "doubtless take some years before the fact is mentioned in text-books."—H. G. A.]

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

Acrodermatitis Perstans (Hallopeau), Phlycténose Récidivante des Extrémités (Audy), New Contribution to the Study of the Dermatosis called. C. Vignolo-Lutati. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, June 29th, 1918, lix, 3, p. 153.)

Alopecia Peladoid, Contribution to the Study of. L. Morini. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, May 26th, 1918, lix, 2, p. 100.)

Atrophia Maculosa Varioliformis Cutis, Varioliform Macular Atrophy of the Skin, a hitherto unrecognised and undescribed atrophic affection of the skin. M. L. Heidingsfeld. (*Journ. of Cut. Dis.*, May, 1918, xxxvi, No. 5, p. 285.)

Cheilitis Exfoliativa, Case Report. D. W. Montgomery. (*Journ. of Cut. Dis.*, June, 1918, xxxvi, No. 6, p. 363.)

Cowpox or Impetigo (Bockhart)? G. Nobl. (*Derm. Wochenschr.*, August 17th 1918, No. 33, p. 559.)

Darier's Disease, A Contribution to. Oskar Salomon. (*Derm. Wochenschr.* March 23rd, 1918, lxvi, No. 12, p. 177.)

Darier's Disease with Mucous Membrane Changes and Impetigo-like Eruption. J. Reenstierna. (*Arch f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 841.)

Diphtheria of the Skin and Mucous Membranes, On Chronic. J. Kyrle. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 769.)

Eczema in Childhood, Treatment of. C. J. White. (*Boston Med. and Surg. Journ.*, January 3rd, 1918, clxxviii, p. 5.)

Epidermolysis Bullosa Hereditaria. Ludwig Zweig. (*Arch. f. Derm. u. Syph.*, 1918, cxxv, 1, p. 1.)

Erythema Nodosum. Prof. Marfan. (*Med. Press*, July 3rd, 1918, p. 6.)

Erythema Nodosum and Syphilis, On the Relationship between. Gustav Stümpke. (*Arch. f. Derm u. Syph.*, 1918, cxxiv, 4, p. 671.)

Erytheme Urticata Atrophicans. F. Rafaeli. (*Giorn. Ital d. Mal. Ven. e della Pelle*, March 26th, 1918, lix, 1, p. 23.)

Exanthema Folliculare Acneiforme, On (a remark on the work of V. Veress). Sprinz. (*Derm Wochenschr.*, May 18th, 1918, lxvi, No. 20, p. 347.)

Folliculitis Ulerythematosa Reticulata. G. M. MacKee and Mihran B. Parounagian. (*Journ. of Cut. Dis.*, June, 1918, xxxvi, No. 6, p. 339.)

Jaundice, A Case of Fatal. Rawdon A. Veale and B. H. Wedd. (*Brit. Med. Journ.*, September 28th, 1918, p. 341.)

Lupus Erythematosus and Tuberculosis, The Relation between. Fred Wise. (*New York Med. Journ.*, June 22nd, 1918, p. 1164.)

Macular Erythema in Diabetes Mellitus, On a. H. Koch. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 845.)

Marbled Nails, Their Prognostic Symptomatic Significance. R. Sabouraud. (*Med. Press*, August 7th, 1918, p. 100.)

Parapsoriasis (Brocq), On the Therapy of (pilocarpine injections). A. Weinmann. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 785.)

Pemphigus, Contribution to the Study of the Ætiology of. L. Tommasi. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, June 29th, 1918, lix, 3, p. 146.)

Pemphigus Vulgaris, On the Ætiology of. G. Stümpke. (*Arch. f. Derm. u. Syph.*, cxxiv, 4, p. 681.)

Pityriasis Lichenoides Chron. (Parakeratosis variegata, Parapsoriasis, Erythrodermie pityriasique, etc.). F. v. Krzysztalowicz. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 647.)

Psoriasis, On the Pathogenesis of. C. Kreibich. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 665.)

Sclerema Neonatorum, Chemical Changes in the Subcutaneous Fat in. Clayton S. Smith. (*Journ. of Cut. Dis.*, September, 1918, xxxvi, No. 9, p. 436.)

Scleroderma, Ossification in a Case of. S. Pollitzer. (*Journ. of Cut. Dis.*, May, 1918, xxxvi, No. 5, p. 271.)

Scurvy. Herbert Vincent O'Shea. (*Practitioner*, October, 1918, p. 217.)

Seborrhœic Eruptions, Observations on the Ætiology and Treatment of. H. W. Barber and H. C. Semon. (*Brit. Med. Journ.*, September 7th, 1918, p. 245.)

Vitiligo, With Notes of Four Cases. Archibald W. Harrington. (*Glasgow Med. Journ.*, August, 1918, p. 87.)

FUNGOUS AND PARASITIC DISEASES.

Barbers' Itch (Bartflechten), On the Present Epidemic of. C. Bruhns. (*Derm. Wochenschr.*, April 13th, 1918, lxvi, No. 15, p. 225.)

Combating Lousiness among Soldiers and Civilians (with plates x–xiii and 26 text-figures). G. H. F. Nuttall. (*Parasitology*, May, 1918, x, No. 4, pp. 411–588.)

Epidermophytia (Tinea Cruris) Maculosa Disseminata simulating Pityriasis Rosea (illustrated). V. Valle. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, June 29th, 1918, lix, 3, p. 166.)

Itch, How to diagnose, when not a Dermatologist. R. Sabouraud. (*Med. Press*, August 14th, 1918, p. 114.)

Lice and Skin-disease, A Note on. J. F. Smith. (*Lancet*, July 27th, 1918, p. 106.)

Mycotic Dysidrosis (Kaufmann-Wolf), Contribution to the Question of. C. v. GRAFFENRIED. (*Derm. Wochenschr.*, May 25th, 1918, lxvi, No. 21, p. 361.)

Trichophyta, On the Wide Distribution of. GALEWSKY. (*Derm. Wochenschr.*, March 9th, 1918, lxvi, No. 10, p. 145.)

GRANULOMATA.

Glanders, A Case of, in the Human Subject. L. S. DUDGEON, ST. SYMONDS, and A. WILKIN. (*Journ. of Comparat. Path. and Therap.*, March, 1918, xxxi, pt. 1, p. 43.)

Glanders, Note on. F. E. MASON. (*Journ. of Comparat. Path. and Therap.*, March, 1918, xxxi, pt. 1, p. 58.)

Granuloma Pediculatum Luposum, On. E. ZURKELLE. (*Derm. Wochenschr.*, May 18th, 1918, lxvi, No. 20, p. 345.)

Oriental Sore, A Note on. J. B. CHRISTOPHERSON and J. R. NEWLOVE. (*Lancet*, June 8th, 1918, p. 802.)

Sporotrichosis, A Case of. R. STANZIALE. (*Giorn. Ital. d. Mal. Ven. e della Pel e*, June 29th, 1918, lix, 3, p. 129.)

Sporotrichosis following Mouse-bite, with certain Immunologic Data. J. J. MOORE and D. J. DAVIS. (*Journ. of Infect. Dis.*, September 1918, xxiii, No. 3, p. 252.)

Treatment of Thirty Lepers with Sodium Gynecardate "A," Report on. E. MUIR. (*Ind. Med. Gaz.*, June, 1918, liii, No. 6, p. 209.)

HYPERKERATOSIS.

Porokeratosis (Mibelli), The So-called, with Special Reference to its Histopathology. SHIN-ICHI MATSUMOTO. (*Journ. of Cut. Dis.*, July, 1918, xxxvi, No. 7, p. 379.)

Punctiform Keratodermia, On a New Form of. SHIN-ICHI MATSUMOTO. (*Journ. of Cut. Dis.*, May, 1918, xxxvi, No. 5, p. 280.)

DERMATITIS TRAUMATICA, ETC.

Auto Lesions in a Boy, aged 13 years (illustrated). J. CAPPELLI. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, May 26th, 1918, lix, 2, p. 92.)

Dermatosis Provocata. R. RIVALTA. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, March 26th, 1918, lix, 1, p. 45.)

Dermatitis Venenata by Vegetable Toxins, The Treatment of. ALBERT STRICKLER. (*Journ. of Cut. Dis.*, June, 1918, xxxvi, No. 6, p. 327.)

Intentionally Produced Skin-affections. A. BRAUER. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 595.)

Trinitrotoluene Poisoning, with Records of Five Cases, On. ALBERT WM. GREGORSON and FRANK E. TAYLOR. (*Glasgow Med. Journ.*, August, 1918, p. 65.)

GENERAL.

Dermatitis and War Experience of Skin-diseases. FR. HAMMER. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 696.)

Duties of the Dermatologist. H. H. Hazen. (*Journ. Amer. Med. Assoc.*, June 29th, 1918, lxx, No. 26, p. 1989.)

Progress in Dermatology. J. T. Bowen. (*Boston. Med. and Surg. Journ.*, January 3rd, 1918, clxxviii, p. 20.)

Rodent Ulcer. Wallace Beatty. (*Dublin Journ. of Med. Sci.*, June 1st, 1918, p. 329.)

Skin-diseases in Coloured Races—Lupus, Psoriasis, Parasitic Skin-diseases. G. Heim. (*Derm. Wochenschr.*, April 27th, 1918, lxvi, No. 17, p. 257; May 4th, 1918, lxvi, No. 18, p. 302.)

Small-pox in the Field, Notes on Recent Epidemic of. G. H. Mead. (*Lancet*, August 17th, 1918, p. 206.)

Vaccine Therapy, On Disappointments of. H. G. Adamson. (*Lancet*, August 10th, 1918, p. 172.)

PATHOLOGY.

Acid-fast Bacillus obtained from a Pustular Eruption, An. Louis Cobbett. (*Brit. Med. Journ.*, August 17th, 1918, p. 158.)

Circle of the Hair-follicles, The. S. Giovannini. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, June 29th, 1918, lix, 3, p. 129.)

Diphtheroid Organisms with Special Reference to Hodgkin's Disease. I. Nomenclature and Classification of the Diphtheroids (references to diphtheroids of Acne vulgaris and of skin generally). (*Journ. of Infect. Dis.*, July, 1918, xxiii, No. 1, p. 1.)

Skin-Ferments. Edna Sexsmith and W. F. Petersen. (*Journ. Exper. Med.*, February, 1918, xxvii, No. 2, p. 273.)

Sweat-Gland Bodies, To the Knowledge of. C. Kreibich. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 668.)

TREATMENT.

Auto-immunisation of Malignant Tumours against X-rays; Therapeutic Deductions; Dangers of Fractional Doses; Utility of "Surgical Curettage" of Irradiated New Growths. Nogier and Regaud. (*Arch. d'élect. Méd.*, July, 1918, No. 430, p. 288.)

Castor Oil. D. W. Montgomery. (*Journ. of Cut. Dis.*, September, 1918, xxxvi, No. 9, p. 446.)

Cicatrices, Treatment of, by the Continuous Current. R. Casman. (*Arch. d'élect. Méd.*, June, 1918, No. 429, p. 247.)

Leukogen, A Specific against Sycosis parasitaria profunda. H. Loeb. (*Derm. Wochenschr.*, June 8th, 1918, No. 23, p. 398.)

Luekogen (Höchst), A Specific for Sycosis parasitaria profunda, and Further Experiments with Leukogen. H. Loeb. (*Derm. Wochenschr.*, June 1st, 1918, lxvi, No. 22, p. 377.)

Mercury Treatment of Syphilis as a Cause of Albuminuria. J. Forssman. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 719.)

Roentgen Rays and Radium, Experiments with. W. H. Guly. (*Journ. of Cut. Dis.*, June, 1918, xxxvi, No. 6, p. 328.)

SYPHILIS.

Annular Macular Syphilide. J. T. Rothwell. (*Journ. of Cut. Dis.*, July, 1918, xxxvi, No. 7, p. 395.)

Bloch's Dopareaction. C. Kreibich. (*Derm. Wochenschr.*, March 30th, 1918, lxvi, No. 13, p. 193.)

Bruck's Nitric Acid Reaction with Serum and Cerebro-spinal Fluid in Syphilis, Concerning. I. Toyama and J. A. Kolmer. (*Journ. of Cut. Dis.*, September, 1918, xxxvi, No. 9, p. 429.)

Cacodylate of Soda in Large Doses for Arsenobenzol in the Treatment of Syphilis? Can One substitute. H. Maréchal. (*Paris Médical*, May 25th, 1918, No. 21, p. 410.)

Collecting Blood for the Wassermann Test, A Simple Method ("dry method" with films on filter-paper). Chung Yik Wang. (*Journ. of Path. and Bact.*, 1918, xxii, No. 1, p. 85.)

Congenital Syphilis, Prognosis and Modern Treatment of. Fred Wise (translated by W. Lehmann). (*Derm. Wochenschr.*, May 4th, 1918, lxvi, No. 18, p. 289.)

Errors of Diagnosis of Primary Extra-genital Syphilis. Marcel Pinard. (*La Presse Médicale*, May 23rd, 1918, No. 29, p. 263.)

Extra-genital and Extra-sexual Syphilis. C. Rühl. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, May 26th, 1918, lix, 2, p. 75.)

Hereditary Syphilis, A Consideration of Some of the Problems of. Walter S. Reynolds. (*Med. Record*, July 27th, 1918, p. 142.)

Inoculation Experiments with Acuminate Condylomata. Ludwig Waelsch. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 625.)

Intradermic Reaction with Luetin of Noguchi in Syphilis, Brief Note on the. A. Chieffi. (*Giorn. Ital. d. Mal. Ven. e della Pelle*, May 26th, 1918, lix, 2, p. 65.)

Intravenous Injections, The Technique of Large. C. Hamilton Whiteford. (*Practitioner*, October, 1918, p. 216.)

Livedo Racemosa without Proved Syphilis. A. Alexander. (*Derm. Wochenschr.*, July 13th, 1918, No. 28, p. 479.)

Malignant Disease of the Breast, The Value of X-rays in the Treatment of. Claude Saberton. (*Brit. Med. Journ.*, September 28th, 1918, p. 337.)

Prophylaxis, The Venereal Peril and the American Method of. C. Bernard. (*Paris Médicale*, March 23rd, 1918, No. 12, p. 111.)

Prophylaxis of Venereal Diseases in Armies. R. Sabouraud. (*La Presse Médicale*, February 18th, 1918, No. 10, p. 111.)

Special Clinic for the Treatment of Syphilis, Toronto General Hospital, Report of the. E. J. Trow. (*Canadian Med. Assoc. Journ.*, July, 1918, p. 622.)

Syphilis, The Administration of Concentrated Intravenous Injections of Novarsenobenzol in the Treatment of. S. E. Dore. (*Practitioner*, October, 1918, p. 209.)

Syphilis and the State. T. Percy C. Kirkpatrick. (*Dublin Journ. Med. Sci.*, June 1st, 1918, p. 339.)

Syphilis and Yaws, Intravenous Injections of Arsenious and Mercuric Iodides in A. L. Spittel. (*Practitioner*, October, 1918, p. 212.)

Syphilis at Camp Travis, The Treatment of. W. H. Guy. (*Journ. of Cut. Dis.*, September, 1918, xxxvi, No. 9, p. 441.)

Syphilis Erosion. E. Levin. (*Derm. Wochenschr.*, August 17th, 1918, No. 33, p. 567.)

Syphilitic Stigmata, Toward the Knowledge and Differential Diagnosis of K. Allmann. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 807.)

Titration of Complement for its Power to Combine in the Syphilitic System. A. W. Stillians. (*Journ. of Cut. Dis.*, May, 1918, xxxii, No. 5, p. 289.)

Treatment of Syphilis, Report of Special Clinic for Syphilis, Toronto Genera, Hospital. W. T. Williams. (*Canadian Med. Assoc. Journ.*, July, 1918, p. 627.)

Tuberculosis and Syphilis. E. von Adelung. (*Journ. Amer. Med. Assoc.*, April 27th, 1918, lxx, No. 17, p. 1211.)

Wassermann Reaction, On the Question of the Specificity of the, especially over the Ausfall, by Tuberculosis and Tuberculides. W. Kerl. (*Arch. f. Derm. u. Syph.*, 1918, cxxiv, 4, p. 734.)

Wassermann Test, The Results and Interpretation of the. Clarence A. Johnson. (*Med. Record*, July 13th, 1918, p. 59.)

REVIEWS.

Diseases of the Skin: Their Pathology and Treatment.*

This volume is one of the larger text-books of dermatology, and evidently aims at being a complete treatise on the subject. On the whole this aim may be said to be successfully attained, although there are portions of the book that seem to be disappointing.

The classification followed is more or less that of Hebra, but, as we think rightly, this is used merely in order to facilitate arrangement into chapters and there is no slavish adherence to it.

The subject-matter is introduced by a concise and very clear exposition of the salient facts of the anatomy and physiology of the skin, sufficient to refresh the knowledge of the student and to enable him to follow the histological descriptions of the morbid conditions dealt with later. In this there are one or two points which we should like to see altered in the next edition. For instance, it is surely not correct to state that the horny cells are "quite elongate," as this elongation is only seen in the transverse section and has no existence in reality. This is perhaps a more important point than might first be imagined, since it is always so difficult to get the student away from the sectional conception of the skin which this statement encourages. Again, surely the stratum germinativum is the basal layer only and not the whole of the prickle-cell layer! There is,

* *Diseases of the Skin: Their Pathology and Treatment.* By Milton B. Hartzell, A.M., M.D., LL.D., Professor of Dermatology in the University of Pennsylvania. Philadelphia and London: J. B. Lippincott Company, 1917. Pp. xiv + 753. Fifty-one Coloured Plates and 242 Cuts in the Text. Price 30s.

again, some importance in this, because it is generally a sign of abnormal proliferation if cell-division be found in any other layer but the basal.

The chapter on eczema is, from a descriptive point of view, excellent, and very full information is given as to its treatment, but the influence of surface pyogenic infection is perhaps dealt with in hardly sufficient detail. The author takes throughout very sane and cautious views as to the influence of various internal disordered states in the production of eczema.

The chapter on Dermatitis factitia is an excellent example of the well-balanced judgment that the author displays throughout his book, and has, of course, an added importance since the war, when it has been greatly increased by the wish of some to escape service. We note with pleasure the view taken by the author that the so-called Dermatitis symmetrica dysmenorrhœica is of factitious origin. It may be noted in passing that the excellent photograph of a factitious eruption extending down the whole of the spinal region disposes effectually of the contention of some that factitious dermatitis does not occur in regions that are difficult to reach.

Under the heading of "Lupus" it is to us a matter of regret that the X-rays receive such strong recommendation as a method of general treatment, and are placed upon a level with, if not above, the arc treatment. In our opinion they are extremely dangerous owing to their liability to bring on malignant disease—a complication which is not mentioned in this connection.

Syphilis is extremely well handled from the descriptive point of view and the illustrations form an extraordinarily complete set. We could have asked for a fuller exposition of the principles and details of treatment in a treatise of this size, but, after all, the diagnosis is the chief point, and the main points are dealt with in treatment, if somewhat too cursorily.

Under "Alopecia areata" we note with interest that the author considers that the evidence in favour of the parasitic theory is "almost entirely clinical, but quite conclusive"—a view which does not seem to be supported by the results of the present war, where the shocks, anxiety, and mental strain have been followed by an enormous increase in the frequency of this disease without, as far as our personal experience goes, the production of a single epidemic.

Dealing with the volume as a whole we have found it extremely interesting reading, concise in spite of its size and extremely clearly put. One may differ here and there from the author in opinion, but one cannot easily misunderstand him. The book is very profusely supplied with illustrations, and of these we can only express our intense admiration for the half-tones, both clinical and microscopical, and one cannot fail to be struck by the wonderful series of cases which the author has had the good fortune to collect. As regards the colour photographs, they seem to us to lack fidelity both in sharpness of delineation and in tone of colour, but this is, perhaps, of less importance, as they are backed up by the half-tones with their almost mathematical accuracy. A. W.

Diseases of the Male Urethra.*

The greater part of this book is taken up by the consideration of gonorrhœa and its sequelæ. There is a chapter on the bacteriology of gonorrhœa based on the

* *Diseases of the Male Urethra.* By Irvin S. Koll. W. B. Saunders Co., 1918.

work of Carl C. Warden, who states that "the diagnosis of gonorrhœa rests on cultural methods only. The old criterion, the microscopic appearance of smears, is unreliable." This ideal is not carried through in the practical part of the book, where the old criterion is used.

There are descriptions of the operations of vasotomy and epididymotomy for acute gonorrhœal epididymitis, but no indication is given as to the success of this method of treatment.

There is a chapter on sexual impotence, in which stress is laid on pathological conditions of the verumontanum and its treatment by local applications to this part.

There are numerous illustrations, and these are uniformly good, and what is, perhaps, more important, they are relevant.

White and Martin's Genito-urinary Surgery and Venereal Diseases.*

This edition of a well-known work has been extensively revised, and the result is eminently satisfactory. The surgical part of the book gives very thorough descriptions of the pathology, clinical aspects and treatment of the various diseases, in most cases the technique of the investigation and treatment being sufficiently described as to enable the surgeon to carry it out without referring to any other source, but it would have been an advantage if a few references to original articles had been given. The illustrations are profuse, and most of them are useful, the only exceptions being the reproductions of the radiograms, which are very indistinct.

The venereal diseases are treated very fully, and the chapters on syphilis are excellent throughout. The clinical descriptions, with accompanying illustrations, are extremely valuable, while the treatment advised takes a sane and impartial view of the modern methods of treatment.

The remarks on the prophylaxis of syphilis state the present position of this problem clearly, but the conclusions come to—that it should be made reportable, that those who transmit it should be held criminally responsible, and that those capable of transmitting it should be kept under confinement until they have been rendered incapable of transmitting the disease—do not seem within the realm of practical politics in the present state of public opinion.

* *White and Martin's Genito-urinary Surgery and Venereal Diseases.* By Martin, Thomas and Moorhead. Tenth edition. J. S. Lippincott & Co Price 30*s*.

THE BRITISH JOURNAL

OF

DERMATOLOGY AND SYPHILIS.

OCTOBER—DECEMBER, 1918.

A CASE OF POROKERATOSIS.*

By H. MacCORMAC, M.D., F.R.C.P., Lieut.-Col., R.A.M.C. (T.C.),
Consulting Dermatologist, British Expeditionary Force, and
C. de C. PELLIER, B.A., B.C., Capt., R.A.M.C. (T.C.).

The case to be described presented himself at —— General Hospital in April, 1918. As the condition from which he suffered is both rare and interesting it was considered worthy of record.

The man under consideration, George F—, a private soldier, aged 27 years, had at the time seen served four years in the Army. In civil life he was employed in a chemical works.

The history of the complaint we give below was obtained with difficulty; the patient was both vague and uncertain in his replies, and on different occasions contradicted statements previously made. He stated he had no recollection of any former illness, or of the occurrence of skin-disease in other members of his family. The condition was noticed on the left hand some two years prior to admission into hospital, and was ascribed to a burn with vitriol in civil life. It began about the middle of the hand, spreading thence down to the fingers and up the arm and onto the chest and neck. For about one year after the onset the disease had progressed with some rapidity, after which time further extension had been slow or negligible. Weakness of the left hand was also complained of.

* The authors desire to express their thanks to the Medical Research Committee, and to Sergt. Maxwell for the water-colour.

When first seen by us the distribution was as follows: Lesions existed on all the fingers and the thumb, extending up the front of the forearm in an irregular band. The left shoulder, left axilla and left side of the neck were also involved. A series of lesions followed a sinuous course over the left breast, turning up from the lower end of the sternum to take a line sharply limited to the middle of the

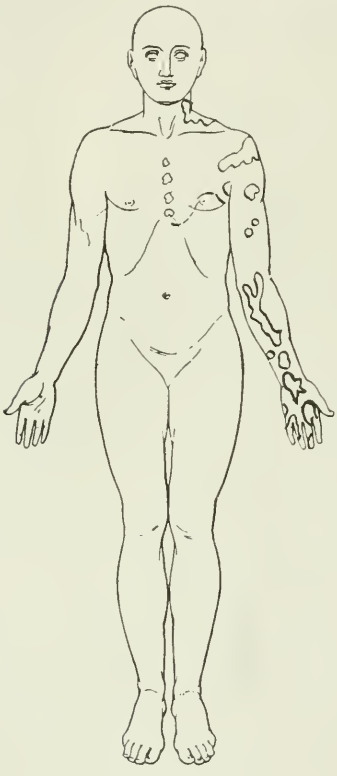


Fig. 1.

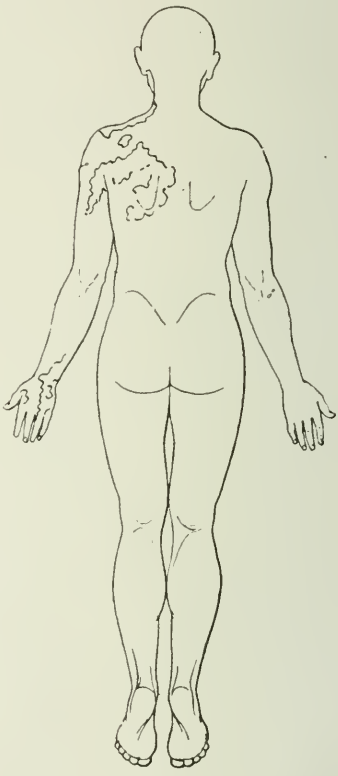
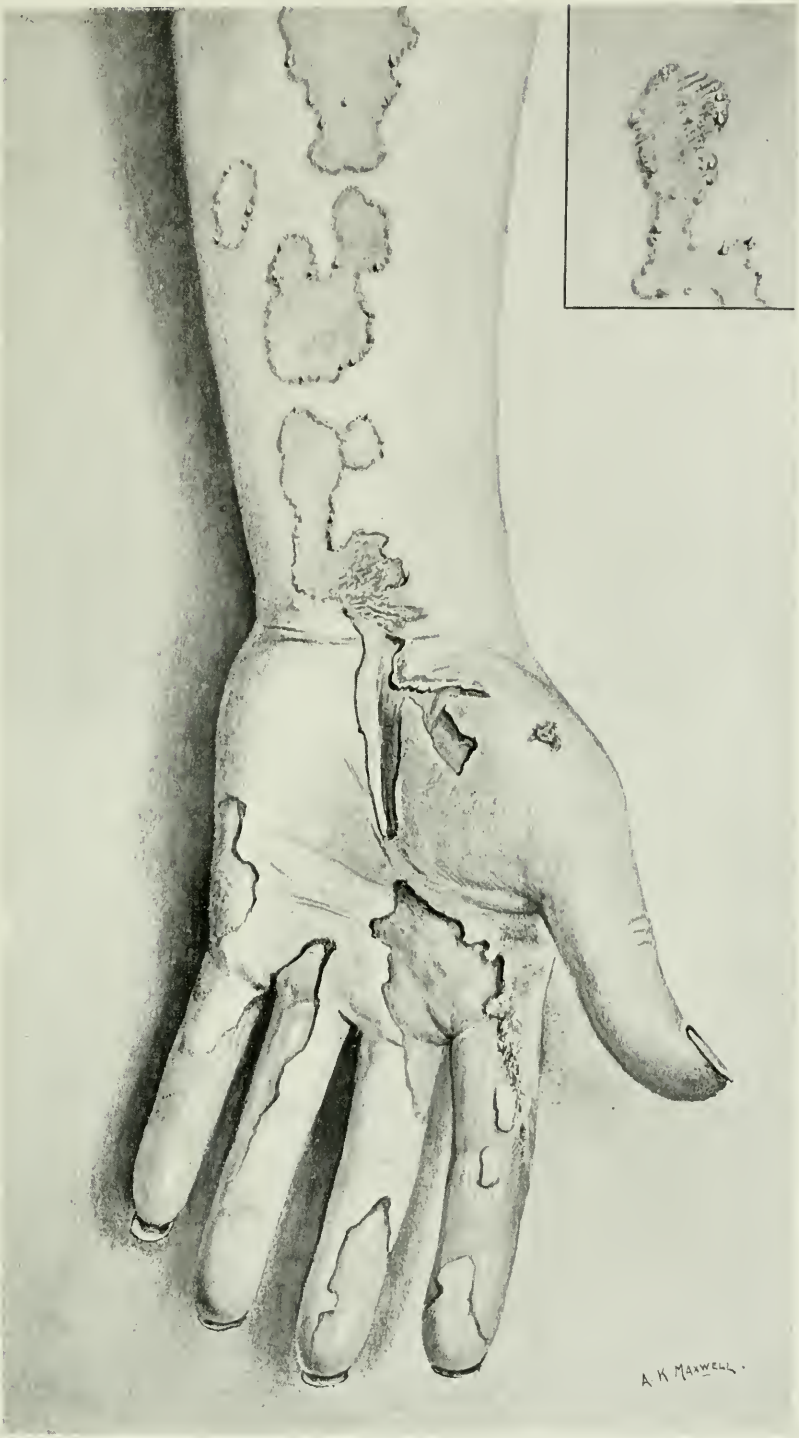


Fig. 2.

body. Other lesions were clustered together over the left scapula and left shoulder. This distribution is illustrated in the figures (Figs. 1 and 2).

Given in greater detail, the disease in the various regions was of the following nature: All the nails of the left hand, except the thumb-nail, were affected, having become thickened, rough, and brittle, and raised from the nail-bed at the free end. On the hand the palmar surface was chiefly involved, the characteristic



TO ILLUSTRATE THE CASE OF POROKERATOSIS BY LT. COL. H. MACCORMAC AND CAPT. C. DE C. PELLIER

features of porokeratosis being well developed, *i. e.* a peripheral rampart, on the summit of which there was in places a fine sulcus containing a tiny horny ridge. The skin enclosed by this rampart was red, slightly scaly, but not atrophic. On the wrist and forearm similar lesions were seen, with, in addition, numerous horny papules with central plug. All these features are well illustrated in a photograph of a painting of the hand and arm by Sergt. Maxwell (Fig. 3). On the upper arm, shoulder and breast a less advanced stage had been reached: the rampart was ill-formed, the lesions smaller, many of the circles being made up of groups of small conical horny papillæ. In the axilla these had become sodden and moist. Two small, slightly elevated, dirty white spots, each larger than a pin-head, were found present on the right side of the dorsal aspect of the tongue.

Histology.—Sections were made from a piece of tissue removed from the front of the arm in the neighbourhood of the elbow, the selected lesion being in a comparatively early stage of evolution. I desire to thank Capt. Smith, R.A.M.C., for these preparations. Hyperkeratosis of the mouth of the sweat-ducts was noted, and this process was also developed at the orifice of the hair-follicles. This finding is in agreement with the recently published observations of Prof. Matsumoto (1). There was a slight increase in the number of cells in the rete, and this had lost to some degree its characteristic papillary arrangement, presenting a flattened-out appearance. In the papillary and subpapillary regions moderately dense cell infiltrations existed, and cell infiltrations were also present around the sweat-glands and small blood-vessels.

The original views of Mibelli cannot be sustained by the findings indicated above, nor are the early lesions on the tongue, found in this case, in accordance with the theory of a sweat-duct origin. In the figures illustrating distribution (Figs. 1 and 2), it is seen that the general arrangement bears some resemblance to a unilateral nævus, as in the case reported by Truffi (2).

References.

(1) Shin-ichi Matsumoto.—"The So-called Porokeratosis of Mibelli, with Special Reference to its Histopathology," *Journ. of Cut. Dis.*, 1918, xxxvi, No. 7.

(2) Truffi.—*Ann. de Derm. et de Syph.*, Paris, 1905, vi, p. 521 (quoted in *Allbutt's System of Medicine*).

A CASE OF HYPERKERATOTIC LINEAR NÆVUS, WITH SOME OBSERVATIONS ON ITS MICROSCOPIC STRUCTURE BY DR. J. DARIER (Paris).

By H. C. SEMON, Capt., R.A.M.C.(T.C.), M.D., M.R C.P.

The patient is a healthy young man, aged 24 years. Nothing in his family or personal history is worthy of record, except that none of his relations are similarly affected. The lesions date back to his earliest youth, and he can remember no time when he was without them. The main arrangement and distribution can be gathered by an examination of the accompanying photographs of the front and back of the trunk and upper extremities. At first glance the trained observer would have no hesitation in recognising the presence of linear nævus, the curved longitudinal striæ being particularly well marked on the front of the left deltoid and bicipital regions, and on the abdomen and left lower costal margin. The clinical appearances of the lesions vary according to the area affected, but the condition of hyperkeratosis is common to them all, and is particularly well marked at the navel, on the penis, and in the interdigital spaces of the left hand, where they are practically indistinguishable from the common flat wart. On the buttocks, their dark blueish colour and flattened shiny surfaces recall the striking appearances sometimes seen in Lichen planus hypertrophicus, while in the front of the neck there is a close resemblance to small sessile fibromata, not a few of the lesions being actually pedunculated. The most remarkable feature of the eruption, which led the writer to suspect the possibility of a totally different morbid entity, was noted on the back of the neck and slightly to the left of the middle line, in the shape of a longitudinal, almost vertical narrow band, made up of some fifty or more loosely aggregated elements. A brief detailed description of these is essential (see Fig. 3).

Each one of the lesions is a raised follicular papule of a dirty brown or black colour. The contents are easily expressed or removed with forceps, and are of a sticky, sebaceous character, suggesting sebum and epithelial horny *débris*. After removal of this plug a cup-shaped elevation remained (two of these are well delineated by the photograph—see Fig. 4), agreeing in the main with those described for

FIG. 1.—Chest.

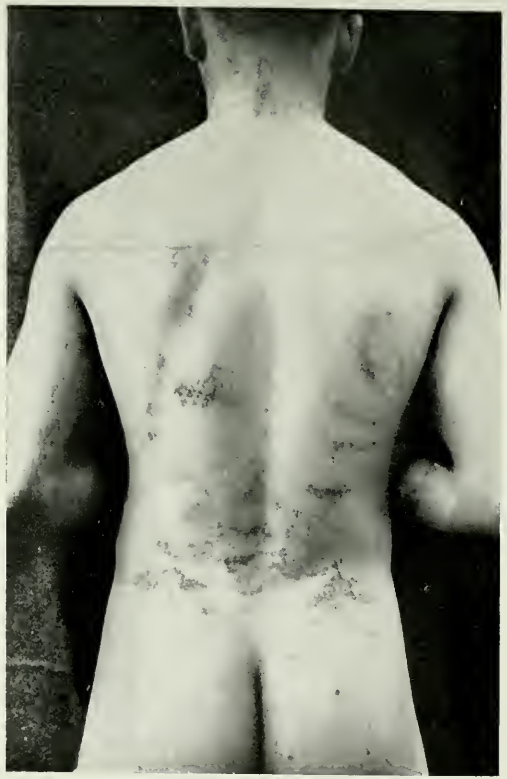


FIG. 2.—Back.

It is to be noted that the areas most affected are just those which are normally exposed to the greatest amount of friction from clothing or occupation, viz. the neck, the bend of the elbow, the back ("braces" area), umbilical or belt area, the interdigital clefts.

TO ILLUSTRATE CAPT. SEMON'S CASE OF HYPERKERATOTIC LINEAR NÆVUS.

FIG. 3.—The microphotograph demonstrates hyperkeratosis, acanthosis, and acantholysis. The absence of migratory cells and leucocytic infiltration of the papillary body is proved by a microphotograph (not reproduced) of a lower power.

FIG. 4.—A close view of the plaque of lesions seen in Fig. 2 on back of neck. Several of the lesions resemble those of Molluscum contagiosum. Their contents have been expressed from two of them. The prominence of apparently unaffected follicles is noteworthy.

TO ILLUSTRATE CAPT. SEMON'S CASE OF HYPERKERATOTIC LINEAR NÆVUS.

the condition now called "Dyskeratosis follicularis vegetans" by Dr. J. Darier (Darier's disease) in his *Précis de Dermatologie*, 1918, pp. 244–5. Although the general linear arrangement was against the probability of such a diagnosis, a biopsy on the front of the left forearm was carried out, and the sections and photographs were sent to Dr. Darier for an opinion.

In due course Dr. Darier most courteously wrote a reply, and a brief translation of the essence of it, together with reproductions of two microphotographs, are appended for a study of the histological condition present.

"*Histology.*—There is slight hyperkeratosis with generalised diffuse acanthosis. In places there is acantholysis, which lends a spongy appearance to the Malpighian body, and is in some respects reminiscent of the histological appearances met with in vesicular eczema (*i.e.* it is a 'spongioid' condition). It differs from it, however, in the absence of migratory cells in the affected foci, nor is there any evidence of leucocytic infiltration of the underlying papillary body. Morover, there is no desiccation or crust-formation of the upper corneous layers, as is usual in eczema. In short the resemblances are only apparent, and we are dealing with some other condition. In my opinion the evidence offered by the presence of acantholysis is in favour of an epidermal malformation. I have seen acantholysis, not in diffuse foci as in this case, but wide-spread throughout almost the whole mucous layer in a very unusual case of generalised ichthyosiform Hyperkeratosis follicularis.

"The subject is an otherwise healthy young man, and is an attendant in my wards in the St. Louis. A photograph of the condition is reproduced on p. 216 of the second edition (1918) of my *Précis de Dermatologie*, and I am sending you some sections for a comparison with your case.

"Your case seems to me to be of congenital origin, and resembles that portrayed on p. 218 of the *Précis*, and is in all likelihood an example of cutaneous malformation of the order Hyperkeratosis ichthyosiforme (which Brocq calls Érythrodermie congenitale ichthyosiforme avec hyperépidermotrophie). It is peculiar and remarkable in view of two characteristics:

"(1) Instead of being generalised, as is usually the case, the malformation shows a tendency in certain areas to assume the distribution

of linear nævus, or Ichthyosis follicularis, briefly described on p. 448 of the *Précis*.

"(2) The presence of acantholysis is exceptional, though I have seen it in an unpublished generalised case of my own.

"I would therefore suggest the following nomenclature:

"Hyperkératose ichthyosiforme partielle à distribution de nævi-lineaires,* et à structure acantholytique."

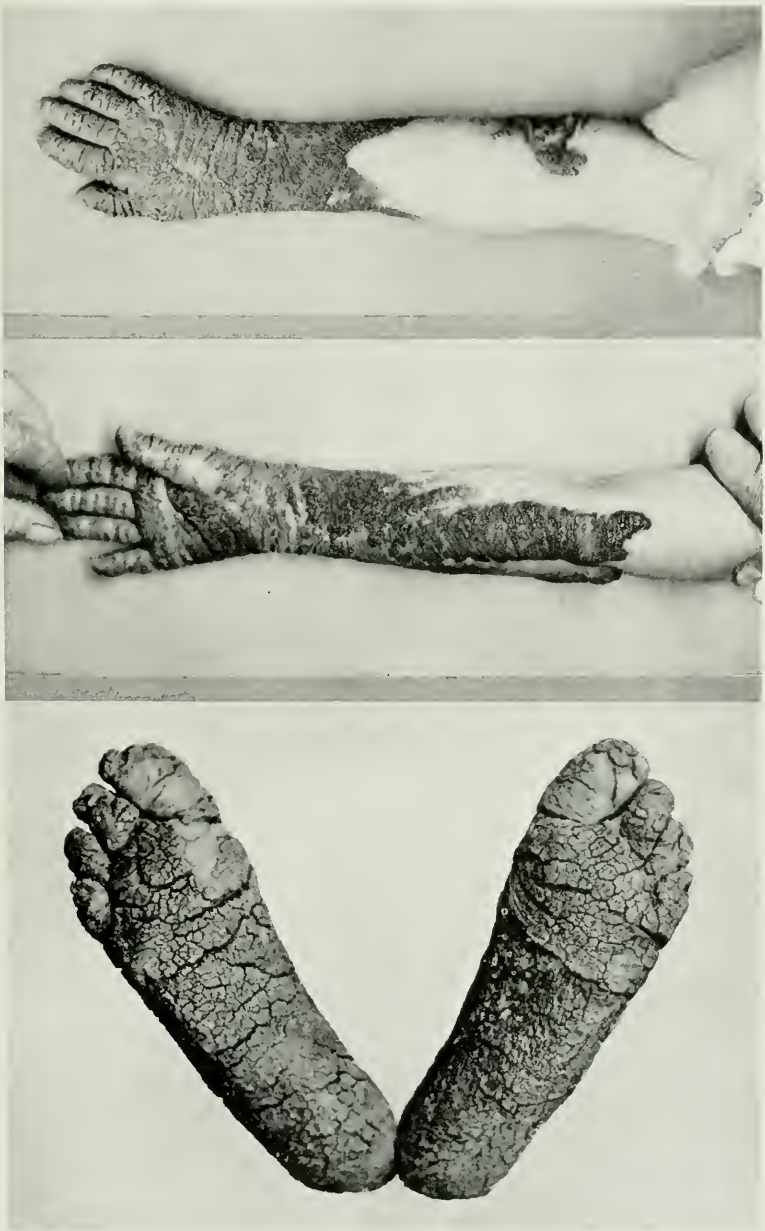
AN UNUSUALLY EXTENSIVE CASE OF SYMMETRICAL KERATODERMIA.

By G. VILVANDRÉ, M.R.C.S., L.R.C.P.
Clinical Assistant to Dr. J. H. Sequeira—Skin-Department, London Hospital.

Margaret R—, aged 5 years, was admitted to the London Hospital in January, 1918. She was of normal and cleanly habits, well grown for her age, and of pleasant physiognomy. The mother stated that the child was born with a white skin, apparently normal on the parts now affected, and the affection began soon after birth. The patient had suffered from no illness except measles, and no other member of the family (there were five other children) was affected. The father and mother were also healthy and free from any skin-affection. There was no history obtainable of any hereditary factor. The condition is well illustrated in the photographs accompanying this communication. The skin of the affected areas was thickened, of greyish-black colour, with some hypertrichosis. The hands, forearms and elbows, both feet, part of the legs, especially the knees, were involved. On the lower extremities the lesions, wider in extent at the knees, tapered to a point on the tibiæ and the thighs in the form of lozenges. The plantar surfaces of both feet were symmetrically affected, the lesions being of a dark, blackish-grey colour, and deeply fissured, resembling the bark of a tree. The dorsal aspects of the feet were also involved, the affection extending in a pointed manner to the lower part of the legs. The hands, both dorsal and palmar aspects, were affected, and the indurated, thickened skin extended to the elbows on the anterior aspects, and to just above the wrists on the dorsal.

* A detailed summary of this group of dermatoses, with a discussion of its ætiology and a very complete bibliography, was recently published by P. Unna in the *Dermatologische Wochenschrift*, August 31st, 1918.

TO ILLUSTRATE DR. VILVANDRE'S CASE OF SYMMETRICAL KERATODERMIA.



TO ILLUSTRATE DR. VILVANDRE'S CASE OF SYMMETRICAL KERATODERMIA.

The case appears to fall into the group of symmetrical hyperkeratoses, of which tylosis is the more common type. The case differs from common tylosis in the invasion of the knees and the dorsal surfaces of the adjacent parts of the limbs.

A portion of skin from the left knee was removed and sent to Dr. Hubert M. Turnbull, Director of the Pathological Institute of the London Hospital, who reported as follows:

"The section includes portions of hair-follicles and sweat-glands. The stratum corneum is from two to six times as wide as the stratum Malpighii; it contains very few nuclear remnants. The outer surface of the stratum Malpighii is undulatory, being raised and depressed in correspondence with the papillary processes and interpapillary bays of the dermis; in consequence of these undulations the stratum corneum dips into the interpapillary processes of the epidermis for about a third of their length. The stratum Malpighii is six to ten cells in depth, and includes a stratum granulosum. In portions of the stratum granulosum prickle borders are present; the cells beneath the granular layer show perinuclear vacuolation and are without prickle borders. In the papillary zone of the dermis, and immediately beneath it, there is a slight perivascular infiltration with lymphocytes and fibroblasts; the vessels are not engorged; elastic fibres are present in normal amount and distribution."

WHITE-SPOT DISEASE AND VITILIGO.

By J. L. BUNCH, M.D., D.Sc.

The grouping together of these two diseases has perhaps little more justification than that they both give rise to localised white patches on the skin. Their ætiology and pathology have little in common, and yet their clinical appearances are, at first sight, very similar. Both diseases give rise to well-defined, sharply-cut, white skin-lesions, often circular in outline, which show up prominently on any skin, but more especially when that skin normally contains a good deal of pigment. But both these diseases are to be sharply differentiated from localised atrophies of the skin, which may cause white patches of any shape, and from scars of all kinds, which also are frequently white. The atrophies which may most commonly be

mistaken for the two diseases now under discussion are Lichen planus atrophicus and the Striæ et Maculæ atrophicæ, which are usually due to unusual tension of the skin during a short period, as in pregnancy, or the rapid growth of a limb at puberty. Senile atrophy of the skin also causes white patches, and so does Atrophia maculosa cutis, but all these are essentially atrophies, and the microscopic appearances cannot be mistaken, even if the clinical appearances are deceptive. Of the white patches of leprosy and other infrequent diseases it is unnecessary to say anything, since other symptoms make the diagnosis clear. Vitiligo is a sufficiently rare disease, for, to take the records of Crocker, he only saw 21 cases of vitiligo among 5000 private patients and 15 cases in 10,000 hospital cases who came to him with skin-diseases.

But I have now under my care a case of vitiligo which is so unusual as to be almost unique. The description of it is as follows :

A girl, aged 12 years, had the hair of the scalp removed by X-rays six years ago for ringworm. The hair grew again, and was normally pigmented. One year ago she developed two well-marked patches of canities, and the hair over these two areas is still quite white. Associated with this hair change she began to show patches of vitiligo, and there are now thirty-five such patches varying in size from a five-shilling-piece to a sixpence, some irregular in outline, some circular or nearly so. In the centre of several of these white patches is a raised, deeply pigmented lesion, resembling a mole. One of these patches with a central mole is situated on the neck ; the others are on the body. This abnormal condition of a vitiligo I believe to be extraordinarily rare, and I can only find records of three similar cases. In my case there is nothing to suggest congenital syphilis, and there is no history of trauma.

If the moles are congenital, as they probably are, they must have preceded the leucodermic patches, and I can find no reasonable explanation why the skin-pigment should have disappeared round the pigmented moles while the moles themselves retain all, or most, of their pigment. If the pigment loss is due to a phagocytic process, one would have expected the moles to be attacked as well.

With regard to the white patches of hair, it is difficult to assume any direct connection between the previous epilation by X-rays and the subsequent development of canities. The central pigmented legion was

CASE 1.—Vitiligo patch on neck with central pigmented mole.

CASE 2.—Similar patch on abdomen.

TO ILLUSTRATE DR. J. L BUNCH'S PAPER ON WHITE-SPOT DISEASE AND VITILIGO.

excised from one of the patches and microscopically examined by Dr. Stogden, pathologist to the Queen's Hospital for Children, who reports as follows:

"The horny layer is slightly thickened. The rete mucosum is not increased in thickness, but sends downgrowths into the corium. Immediately below the epidermis are deposits of pigment. Throughout the growth, which is localised, are masses of cells showing in the upper part of the section a definite arrangement in bundles containing pigment; in the lower part they seem to have no definite arrangement, but are scattered irregularly amongst the connective-tissue cells of the corium. These cells are probably endothelial in origin. There is marked lymphocytic proliferation in the region of the endothelial cell bundles in the upper part of the corium."

The presence of so many endothelial cells in the growth corresponds to the appearances seen in Sutton's case, where he lays great stress on the masses of endothelial cells found in the sections.

A second case, in a patient, aged 9 years, also a girl, has been under my care at the Queen's Hospital for Children for the past two years. She has a number of vitiligo patches on the trunk and limbs, and one patch on the abdomen, about the size of a five-shilling-piece, has a well-marked central, brownish-black, raised spot.

Sections show accumulations of endothelial cells, much as described in the last case.

The patches have varied little since she has been under my care.

Sutton, in the *Journal of Cutaneous Diseases* for 1916, has described two cases of vitiligo in which the white patches were associated with a central, raised, pigmented lesion, most probably of the nature of a mole.

The first case was that of a woman, aged 22 years, who had a single rounded patch on the right cheek. This measured a little more than 2 cm. in diameter, and had been present three months. Exactly in the centre of the patch was a small, rounded, slightly elevated, brownish papule, which somewhat resembled a small pigmentary nævus, but which the patient had not noticed before the onset of the vitiligo. The lesion had developed slowly and never gave rise to subjective symptoms of any sort. There was no history of trauma or syphilis. A biopsy was refused.

His second case was that of a school-girl, aged 16 years, who developed vitiligo when thirteen, but the earliest patch, which was located

on the right side of the forehead, had gradually regained its colour, and at the time of consultation was scarcely discernible. A second small patch in the left clavicular region also was very faintly defined. Two other lesions, in the right and left scapular regions respectively, had changed but little since attaining their present size, and stood out sharply as snowy, oval plaques with normally pigmented borders. The centre of each spot was marked by the presence of a small, roundish, brown maculo-papule. The patient's mother said that the lesions had begun as minute, brownish points, which were usually, but not invariably, sufficiently elevated to be perceptible to touch. There was no history of trauma or of pre-existing nævi. There was no reaction of the patient to tuberculin, and both the Wassermann and luetin reactions were negative.

The child remained under observation for a year, but during this time the appearance of the vitiligo lesions changed very little, if at all, in spite of the frequent employment of various chemical and actinic irritants, calculated to hasten the formation of pigment.

The pigmented central raised lesion was excised from one of the vitiligo patches and a biopsy performed. The stains used were hæmatoxylin-eosin, Unna-Pappenheim's methylene-blue, and Weigert.

"The stratum corneum was slightly thickened and parakeratotic. The prickle layer was increased in depth, and the basal cells exhibited signs of active proliferation. The epidermis contained large amounts of pigment. The papillæ were hypertrophied and somewhat swollen. The intrapapillary blood-vessels were greatly increased in size, and there was more or less perivascular infiltration—mainly small round cells throughout the upper regions of the derma. The lymphatic channels also were greatly dilated. The most striking, however, was the presence, throughout the corium, and especially in the areas underlying the inflammatory zone, of masses of tissue of endothelial origin, which stained deeply with the basic dyes. The perivascular regions were richest in this newly-deposited material, but few localities in the subpapillary regions were entirely exempt. No pigment in the derma. Skin-glands unaffected. Elastic fibres in the papillary region, shorter, straighter, and stained less deeply."

Dr. Rolleston's case was a man aged 59 years, who died of primary squamous-celled carcinoma of the cardiac orifice of the stomach. The hepatic ducts and the cystic duct were occluded by invasion of the

growth from without. The man was jaundiced, and had some small patches of vitiligo on the trunk, which also were slightly stained with yellow. In the centre of some of these vitiligo patches was a central pigmented mole, which was shown microscopically to be a fibroma. Microscopic examination of the skin showed that the normal pigment of the rete Malpighii could be traced up to the margin of the relatively unpigmented areas, on which it was absent. The moles had existed as long as the patient could remember, and were probably congenital; they were not secondary malignant growths.

Perhaps one of the best-marked cases of white-spot disease which have come under my care was one which I showed at the Royal Society of Medicine on December 11th, 1914. The case has been published in the *British Journal of Dermatology* and has been epitomised in the latest edition of Stelwagon's *Diseases of the Skin*. When shown she had twelve typical morphœa lesions on the shoulders, back, and chest, and one just below the iliac crest, which had all made their appearance during the past two months. During the succeeding three months several more made their appearance, with the same indurated, dead-white, porcelain-like characteristics.

Some of the patches seemed to be slightly sunk below the surface, almost as if they were let into the skin, and some of the recent spots had a pinkish or pinkish-blue areola. The spots were quite unsymmetrical, and even when somewhat contiguous showed no signs of coalescing. They varied in size from a threepenny-piece to the size of the original patch over the iliac crest, which was $1\frac{3}{4}$ in. by 1 in. This patch was first noticed when about the size of a sixpence, but little attention was paid to it until some of the other lesions made their appearance. The occurrence of a new patch was preceded by a certain amount of itching, but this passed off as soon as the patch had definitely made its appearance. The child could, however, predict the appearance of a new patch by the subjective sensation of itching which preceded it.

There were no papules of Lichen planus on the skin or mucous membranes, and no family history of tuberculosis.

The case was universally agreed to be one of localised sclerodermia or morphœa.

In no case of Morphœa guttata has, so far as I know, a central pigmented lesion been described.

AN HISTORICAL NOTE ON THE NITS OF THE BODY-LOUSE.

By GEORGE PERNET, M.D.

With reference to Dr. Adamson's abstract of Dr. Bulliard's paper on the body-louse in the *British Journal of Dermatology and Syphilis* for July–September, 1918, pp. 188–9, there is no mention therein of the late Dr. Allan Jamieson's short clinical note on the subject in the *British Journal of Dermatology*, vol. vii, 1895, p. 248.* He pointed out that "the ordinary rules as to the localities specially involved are to be followed, but occasionally if lanugo hairs are still present the ova may be found adhering to them . . . and with a lens the nits may be discovered attached to the fine hairs of the back. I have found them there in young subjects, and believe that this, and not always a re-infection, explains the intractability of pediculosis in some individuals." Jamieson's observation was added as a footnote at my suggestion when I was assisting in the production of Radcliffe-Crocker's third edition of his *Diseases of the Skin* (1903, vol. ii, p. 1300).

Jamieson (*loc. cit. supra*) recommended "Calvert's petrofenic soap, which contains carbolic acid as well as paraffin oil, employed to wash the skin, the lather being allowed to dry on. In this way the eggs which have been mentioned as sometimes attached to the downy hairs are killed."

Since Jamieson called attention to the point I have always borne it in mind and mentioned the fact in my clinical demonstrations; and until I read the abstract of Bulliard's paper I thought it was a matter of common knowledge—at any rate among dermatologists. In view of recent observations as to the ætiology of trench-fever the point has gained in importance.

As the insects themselves live in the body-clothes and deposit most of their ova there, Jamieson insisted that it was essential to direct our main efforts perseveringly against them. He advised the wearing day and night next to the skin of a piece of roll sulphur enclosed in a porous bag, and added: "We can thus rid our patients of a source

* Cited by Pernet in Art. "Pediculosis," *Encyclopædia Medica*, vol. ix, 1901, p. 242.

of annoyance without communicating to them our ideas as to the cause . . ."

Although, according to Prof. Nuttall, Nysten (1858) and Girard (1885) had previously called attention to the ova of the body-louse as occurring on the hairs of the body, I think it is only fair to the memory of Jamieson that his name should not be omitted in this connection. Hence this note.

ROYAL SOCIETY OF MEDICINE.

DERMATOLOGICAL SECTION.

Meeting held on October 17th, 1918, Sir James Galloway, K.B.E., C.B., President of the Section, in the Chair.

Dr. J. L. Bunch showed a case of *Urticaria pigmentosa*. The patient, a boy, aged 6 years, had numerous brownish patches on the trunk, limbs and neck. Some were as large as a two-shilling-piece, but the majority were smaller. The patches extended on to the neck, as far as the angle of the jaw, but the face was quite free. The lesions were not raised unless they were irritated, when they came up as wheals, and a well-marked factitious urticaria was present on any part of the skin. The patches appeared shortly after birth.

The President said there could be little doubt about the diagnosis, and Dr. Bunch need hardly have a Wassermann reaction done. As a rule, the pigmentation was not as heavy as it was in this case, but if Dr. Bunch would look up the record of a case from Charing Cross Hospital which he (Sir James Galloway) published, which was worked out by his then clinical assistant, Dr. Brongersma, of the Hague, he would find that that case was spotted, with contrast of colour almost like a leopard.* Sometimes the pigmentation in these cases was very extensive. In the number of the *Journal of Dermatology* referred to there were illustrations of this, also from the same patient in the New Sydenham Society's Atlas.† This was also one of those more unusual cases which commenced at about the age of seventeen or eighteen. Most of the cases commenced earlier than that, but there was an interesting group in which the commencement occurred at from seventeen to twenty-two years of age. Could Dr. Adamson tell us of any recent advances on the ætiology, or did the matter remain in this respect as Dr. Sangster, with Mr. Nettleship, described it years ago?

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* *Brit. Journ. Derm.*, 1899, xi, p. 179.

† *New Syd. Soc. Atlas*, fasc. viii.

Dr. J. L. Bunch showed a case of *Epithelioma of face.* The man, aged 85 years, had a tumour about 2 in. long by 1 in. wide on the nose below the left orbit. It very closely approached the eye. It had been present twelve months, and had increased in size since he was injured in a carriage accident six months ago. It was slightly ulcerating; no glands could be felt. He had been X-rayed without benefit, and the question of operation now arose; or possibly the use of radium or diathermy.

Dr. H. G. Adamson said he would hesitate about doing anything to it. X-ray treatment of large epitheliomata of the skin might be dangerous. It was seldom one could destroy the disease completely. Anything short of complete destruction only led to more active growth. If X-rays were used in this case massive doses should be given – either six pastille doses of unfiltered rays at one sitting, or two to three pastille doses measured through 3 mm. of aluminium and repeated weekly for three weeks. With these massive doses there were likely to be symptoms from absorption of the destroyed tissues, which could be avoided by scraping away the growth before applying the X-rays. Diathermy might be used in this case. Dr. Cumberbatch had described this method and its results in malignant growths at a recent meeting of the Section of Electro-Therapeutics.*

Dr. Graham Little strongly urged the trial of radium in this case, for even if the ulcer were not cured by its application it would probably at least heal over and so promote the comfort of the patient. He had recently had an instance of the value of radium in just such a case as this. It was a large rodent, involving the eyelid and cheek, in which remarkable improvement was maintained with radium. This was applied at the Radium Institute, the dosage being, he believed, 80 mgrm., unscreened, for periods of one and a half hours at a sitting, repeated about every six weeks.

Dr. J. H. Stowers said he had had two cases, perhaps not so advanced as this, under his observation during the last eighteen months, and in each of them radium had produced really satisfactory results. He sent them to the Radium Institute, where Dr. Lynham took charge of them and directed the treatment. Having regard to the patient's age and the extent of the disease he considered treatment by radium the most suitable in this case.

The President said he had recently seen, in private, a case of large epithelioma of this kind, though not in such a troublesome situation; it was on the forehead, and involved the scalp. It was surprising how it could have been allowed to become so extensive, as it was the size of the palm of his hand. He was then asked the question which was now being asked about this case: What was to be done? The patient was a gentleman, aged 78 years, and he decided that it was wisest to leave it alone, as a complete operation was unthinkable. He agreed with Dr. Adamson that to attempt to destroy the growth by means of the X-ray was out of the question; in many cases fungation was accelerated by the X-ray treatment. After massive doses he had seen patients suffering from

* *Proceedings*, 1918, xi (Sect. Electro-Therap.), p. 29.

toxæmia, if not from septicæmia. Therefore it was hopeful to hear from those with experience that they would give this patient the opportunity of radium treatment. A surgical operation in this case would, he thought, determine the duration of the case with dispatch.

Dr. Bunch (in reply) said that when he was in Paris at the clinic of a well-known surgeon there he examined some cases of well-marked epithelioma which he claimed had been absolutely cured by diathermy; he treated one or two during his stay. One was far back in the throat, and he said it had been septic. He had applied diathermy once before, and when he saw the case there was little more than a scar. He treated the patient again while he was there, and promised a cure. It was in the mucous membrane, and so he believed a surgeon would have been shy of tackling it. He would have this patient treated by diathermy.

Dr. S. E. Dore showed a case of *guttate morphœa*. He had seen the patient, aged 61 years, for the first time yesterday, and diagnosed the condition as the guttate type of morphœa, so-called "white-spot disease." He had shown a case here some time ago, which was also seen by Dr. Bunch, who had shown similar cases, and who agreed with the conclusions arrived at. He thought in regard to that case one could recognise three stages—namely, first the ivory or chalk-like patches, then a scaly stage, and thirdly, a stage of atrophy. These cases had been confused with Lichen planus atrophicus and with macular atrophy. In the present case there was also definite scaling on the white patches, and he took these scales to represent an intermediate scaly stage, followed by atrophy, which was also shown in some patches on the shoulders. His belief in the diagnosis of guttate morphœa had been, however, somewhat shaken by Dr. Pringle's opinion that it was a case of Lichen planus. In favour of that diagnosis there was a history that she had had some erythematous circinate lesions on the legs and thighs some time ago; in fact, there were some erythematous rings, in a faded condition, on the legs at the present time. It was worth while discussing whether white-spot disease is, properly, a morphœa, or whether it is a Lichen planus, and whether some cases of macular atrophy represent a terminal stage of one or the other. The lesions were situated in the typical position for white-spot disease, on the neck and shoulders, and the mucous membranes were not affected. The condition was of four years' duration.

Dr. J. L. Bunch said he had come across one or two such cases from time to time, and he had published some cases, which Stelwagon quotes as typical cases

of white-spot disease. The literature seemed to be involved. Apparently it included many atrophic diseases, apart from guttate morphœa. Stelwagon would limit it to Morphœa guttata. His cases, which seem to have been regarded as typical, had no scaliness at any time. In one there was slight erythema round recent patches. They went on to atrophy, and remained atrophic the whole time. He believed the present case was not one of the condition which would now be looked upon as Morphœa guttata, but it might be Lichen planus atrophicus.

Dr. Graham Little believed this to be a case of Lichen planus atrophicus, and this was his diagnosis before he had heard Dr. Pringle's opinion, which gave him more assurance in making it. The case was remarkably like one shown by Dr. G. W. Sequeira, about which the same difference of opinion was expressed, and in which Dr. Stowers and he held the view that it was Lichen planus. With regard to the name "white-spot disease," the American authors, who were the chief offenders in inventing and using it, expressly include under this heading diseases other than morphœa, and he thought it would be useful to discard the name, as tending to confusion.

Dr. H. G. Adamson thought this case was Morphœa guttata. There was no evidence of Lichen planus papules. It was not unusual for sclerodermia to become scaly in that way. One might often see scaliness or plugging of the follicles at the central part of a batch of sclerodermia.

Dr. Bolam suggested that this patient might be the subject of tubercle, as her condition was poor and she only weighed 6 st. It might possibly be an example of fibroid phthisis. With regard to the skin-lesion, he thought that the white patches were atrophic areas following on a tuberculide. They had not the feeling one is accustomed to associate with Morphœa guttata.

Dr. J. H. Stowers asked if Dr. Dore and Dr. Adamson could wholly exclude Lichen planus, seeing that the patient had had circinate patches upon the extremities associated with itching? This did not correspond with the condition spoken of as white-spot disease. It was probable that there were manifestations of disturbed nervous function. He regarded this case as probably an instance of Lichen planus atrophicus.

The President thought the diagnosis would be helped very much if we could get a complete explanation of those definite finely scaly papules on the back. We were familiar with fine scaliness in morphœa; there was a fine scaling in badly-nourished conditions of the skin; even stretching might produce it on a thinned epidermis. The patches on the back and scapulæ of this patient were definite small conical elevations, and they might simply be plugged follicles which had become inflamed, or there might be something more definitely inflammatory, or even granulomatous, and he suggested to Dr. Dore that a microscopic investigation of the skin including a papule would help the diagnosis. His inclination was to regard this as an example of the "guttate morphœa" type rather than as a tuberculide of the Lichen scrofulosorum type, or as atrophic Lichen planus. Perhaps Dr. Dore would be able to tell us more about it later.

Dr. Dore (in reply) said that these chalky or mother-of-pearl lesions were to his mind, clinically at any rate, quite characteristic. In the cases of the condition he had seen, there had never been typical Lichen planus papules, nor appearances similar to this in cases of atrophic Lichen planus. He still, therefore, adhered to the diagnosis of Morphœa guttata.

Dr. E. G. Graham Little exhibited a case of *multiple idiopathic hæmorrhagic sarcoma of Kaposi*. The patient was a young woman, aged 22 years, the mother of one child, who was now aged six, and was perfectly well. The patient came of pure Irish stock, traceable for at least three generations, and denied any Jewish ancestry. The condition began about the age of eight; the distribution as now seen seemed to have been completed in about a year from the commencement of the disorder, and to have remained practically *in statu quo*. There was some pain complained of in the

foot, but no other subjective sensations whatever, and she suffered no inconvenience until a few weeks ago, when she sustained an abrasion of the patch on the dorsum of the foot.

The disorder consisted in a deep pigmentation the colour of "fumed oak," in three areas distributed as follows: There was a patch 2 in. long by 1 in. broad over the dorsum of the right foot, just anterior to the external malleolus; there was another and smaller patch about $1\frac{1}{4}$ in. by 1 in. behind and a little above the external malleolus. In these areas the pigmentation was a continuous sheet; the pigmented patch was scarcely raised above the level of the skin, but the thickening was slightly perceptible when the patch was palpated between finger and thumb. Over the middle of the

outer aspect of the right leg there was an area of about 4 in. by 2 in., consisting partly of small patches of pigmentation, and a large number of discrete pigmented flat papules about $\frac{1}{8}$ in. in diameter, the colour of the small papules being somewhat lighter than the patches. There has never been any tendency to ulceration.

In every other respect the patient was a well-built, healthy woman. It was hoped that it would be possible to obtain a section of the skin for later histological report.

Dr. Pringle had pointed out to him how closely this case resembled that of the patient he had shown here and reported in the July number of the *Proceedings*.* The sex of his (Dr. Graham Little's) patient and the definitely non-Jewish ancestry were points which added to the rarity and interest of the case.

Dr. F. Parkes Weber said he agreed with Dr. Little's diagnosis. Not long ago† he referred to a case in which typical idiopathic multiple hæmorrhagic sarcoma (Kaposi) seemed to commence aboat a nævus, and if the disease in Dr. Little's case had been congenital, one would have regarded it as a condition of vascular nævus. Very few cases of the disease had been recorded in which there was no Hebrew ancestry. One non-Hebrew case, in which the late Sir Jonathan Hutchinson was interested, died at Abingdon, near Oxford. He would like to emphasise the fact that the disease might commence at a quite early age, and that it might probably originate from a lesion which had every appearance of being a vascular pigmented (congenital) nævus. Almost all cases of the disease occurred in Jews, the proportion of non-Hebrews being, probably, not more than 1 per cent.

Mr. H. C. Samuel asked if the fact that the condition did not appear until the patient was eight years old was a necessary and absolute proof that it was not a nævus. Many conditions which were congenital did not manifest themselves until later in life.

Dr. Graham Little (in reply) said he went carefully into the question of the possibility of preceding lesions in this case, and the patient emphatically confirmed the history he had given. He agreed with what Dr. Samuel said as to nævus of late development, but he did not think this was a nævus.

Dr. E. G. Graham Little brought forward a case of *circinate persistent Erythema multiforme*. The patient was a bookstall clerk, aged 34 years. The eruption began on his legs and arms in March, 1918, as small "pimples" which itched. He described two varieties of lesion—a patchy amorphous erythema which itched moderately, and

* *Proceedings*, 1918, xi (Sect. Derm.), p. 107.

† F. Parkes Weber, "Three Cases of So-called Multiple Idiopathic Hæmorrhagic Sarcoma." *Brit. Journ. Derm.*, Lond., 1916, xxviii, p. 309 (Case 3).

left a slight degree of pigmentation, and a ringed lesion, which smarted but did not itch, and left either no discoloration or else a faint buff tint, which finally disappeared. On inspection a few ill-formed patches such as he described are to be seen, also numerous pigmented areas, the site of previous patches, on the trunk and arms. But by far the greater part of the present eruption was made up of vivid erythematous rings with raised œdematous but not vesicating edge, enclosing spaces of the size of a shilling to a five-shilling piece, or the ring might be broken in some part, thus presenting semi-circular figures and portions of circles. The rings were extremely numerous, and covered nearly the whole limb from the buttock to the ankle on both sides. There were a few similar rings on the lower part of the back and on the forearms and shoulders. The individual rings enlarged from the initial papule, the evolution taking some six or weeks in the case of the largest rings, such as those on the lower legs.

The man came to his department in August when he was away on holiday, and his deputy described much the same distribution as now. He saw the patient in the first week of September, when there was no sign of any skin-disorder beyond the pigmentation, which still persisted on the trunk. The eruption seemed to have come out again quite acutely a few days after his visit to him. His health was otherwise good, and he gave a negative Wassermann reaction. The diagnosis in his opinion lay between three alternatives, of which he provisionally accepted the first: (1) Erythema multiforme perstans; (2) Dermatitis herpetiformis "*en cocarde*"; (3) "Erythème annulaire centrifuge" of Darier.

He believed he reported the first case of a rare affection, which had since been classed under the name "Erythema multiforme perstans." The case which initiated the discussion of this type was shown by him first at this Section in 1912,* and at the International Congress in 1913, where very varied opinions were expressed as to its nature. This patient was under his observation for several years, and the appearances of the rings, the persistence of individual rings for several weeks or months, and the slight buff pigmentation inside the rings strongly recalled this case. Further instances of the same type have been shown here by Gray (1913), MacCormac (1915), and

* *Proceedings*, 1911–12, v, p. 92, and *Brit. Journ. Derm.*, 1912, p. 119.

recently by Stowers (1918). The presence of at least one or two vesicles—though isolated and very different from the grouped vesicles of Dermatitis herpetiformis—and his experience of a case which he showed here as a possible "Erythème annulaire centrifuge," which subsequently proved to be an unmistakable Dermatitis herpetiformis, make the diagnosis of Dermatitis herpetiformis possible. This, however, was largely discounted by the moderate degree of itching. Finally the centrifugal spread, the commencement of the ring with a rose spot, the comparative absence of itching, the distribution of maximal intensity on the buttocks and thighs, suggested the type named by Darier "Erythème annulaire centrifuge," of which he had reported what was, he believed, a genuine and, so far, unique case in this country.

Mr. H. C. Samuel said that what was much more important than the actual diagnosis was the ætiology of the condition. There seemed to be some underlying toxæmia, and the patient gave a distinct history of post-nasal catarrh, and said he was constantly swallowing mucus and pus.

The President remarked that one point to which he drew Dr. Little's attention was that the patient complained of some irritation. Perhaps he was exaggerating, but the irritation was enough to keep him awake at night. And the odd thing about this irritation was that it was at the small point which he indicated on the upper part of the right thigh where there was a papular vesicle or vesicles. When these commenced to appear, he began to suffer pruriginous irritation. That made one think of an early or a later condition of Dermatitis herpetiformis. It was too soon to be sure of the diagnosis, but he was inclined to consider that it was early Dermatitis herpetiformis rather than Erythema perstans or "Erythème centrifuge."

Dr. J. H. Stowers communicated a report on a case of *Tuberculosis cutis of six years' duration in the person of a male patient, aged 53 years* (exhibited at the meeting held on July 18th, 1918), confirming the diagnosis. Microscopic examination by Mr. T. W. P. Lawrence, pathologist, University College Hospital:

(1) Slight hypertrophy of the epithelium and papillæ, producing irregularity of the free surface.

(2) Hyaline thickening of the connective-tissue fibres of the corium.

(3) Swelling and proliferation of the endothelium of the capillaries and arterioles, leading, in places, to complete obstruction of the lamina.

(4) A stratum of closely-packed cells surrounding all the capillaries

and arterioles, the cells having well-stained oval nuclei and considerable cytoplasm, indefinite in outline. The nuclei of many of these cells had undergone fragmentation.

(5) Absence of leucocytic exudation.

The lesion was a chronic inflammation, characterised principally by an arteritis and peri-arteritis. The cells surrounding the vessels had some resemblance to the "epithelioid" cells of tuberculous lesions, but there was no caseation and no formation of definite tubercles.

Report by Dr. F. H. Teale, bacteriologist, University College Hospital: Guinea-pig inoculated (four weeks) with piece of ground-up lesion. Miliary tubercles in liver and spleen, few in peritoneum. Retro-peritoneal glands caseous; mediastinal glands caseous; tubercle bacilli isolated.

The PRESIDENT said he would be unwilling to throw any shadow of doubt on the expert report obtained and communicated by Dr. Stowers, but the pathologist had made the suggestive remark that in the retro-peritoneal and other glands of this guinea-pig caseation was noted, and that was not the result of recent tubercle. This must be borne in mind in considering whether this was or was not an absolutely conclusive piece of evidence.

MEETING held November 21st, 1918, Sir JAMES GALLOWAY, President of the Section, in the Chair.

Dr. GEORGE PERNET showed a case of *melanotic growths* (*carcinomatous*). The patient, a woman, aged 48 years, was first seen by him at the West London Hospital on August 27th, 1918, for some growths developing on a black nævus situated about the lobule of the right ear. They were well brought out in the accompanying photograph. As a result of a knock, she thought, some bleeding occurred in front of the lobule three weeks previously, and this was followed by a group of small exuberant growths, the two largest being of the size of large peas. These were irregularly lobulated on their surfaces, which were moist. In earlier days it was a cardinal axiom that such melanotic growths should be removed at once surgically, but surgeons did not appear to be anxious to carry this out at the present time.*

His colleague, Mr. Tyrrell Gray, agreed that radium treatment should be tried, and he sent the case on to the Radium Institute

* See instances in Perrin's article, "Sarcomes," *La Prat. Dermat.*, iv, p. 226.

under the care of Dr. Lynham, who had very kindly given her radium treatment. The growths had flattened down and appeared to be doing well.

These cases used to be called melanotic sarcoma, but more recently they had been shown to be really carcinomatous in nature. No biopsy had been made, nor was that procedure in such cases recommended, but he had no doubt that the case was one of melanotic carcinoma.

Dr. E. G. Graham Little showed (1) a case of *actinomycosis*. The patient was a child, aged 12 years, of well-to-do parents, who lived in a house in Potters Bar, surrounded by fields in which cattle grazed. She was sent to him by Dr. Mercer, who diagnosed actinomycosis; indeed, the clinical characters were very characteristic of that disease. The history was that a swelling was first noted about eight weeks ago, on the outside of the right cheek near the angle of the jaw. There was no abrasion inside the mouth. The swelling was practically painless, but the induration was very marked, and when he saw the case about two weeks ago the whole cheek was hard, swollen, and of a dusky red colour, with some characteristic puckerings of the surface in the site of nodular swellings about the middle of the cheek. His colleague, Dr. John Matthews, was able to demonstrate characteristic mycelial threads in tissue removed by operation from the nodular swelling, but attempts to cultivate the organism failed. No other cases had occurred in Dr. Mercer's experience in the neighbourhood, nor had other children playing with this little girl shown signs of infection. The patient had made considerable progress under treatment with iodide of potassium.

(2) *A case of extensive pigmented nævi.* The patient was a female child, aged 3 months. She was born with the pigmented nævi now seen, which were most unusually extensive and deeply brown, almost black. The largest area was over the sacrum, where a patch some 6 in. by 3 in. occupied the lower part of the back. There were very numerous smaller but similar patches on the face and limbs. A peculiar feature was the complete absence of any development of hair on the pigmented areas; the somewhat pad-like feel of the deepest coloured patches had suggested the possibility of malignant change. He did not think there was any evidence of this himself, and had advised that no treatment should be given.

(3) *A case of Folliculitis decalvans.* The patient was an elderly lady who had been under his care for some eighteen months with a slowly advancing cicatricial alopecia affecting the vertex and frontal area for the most part. There had been very little inflammatory redness at any time and practically no suppuration, but on close inspection there was the characteristic perifollicular excavation and slight redness. There had been no subjective sensations, and the lady was otherwise in excellent health. Careful search had been made for the accompanying Lichen spinulosus, which was described in connection with this type of disease for the first time by Lassueur and myself, and of which Beatty and Dore had since reported other examples. There was no trace of this symptom in this case.

Dr. J. J. PRINGLE said he thought Dr. Little's diagnosis was accurate, and that the case was an example of the "Folliculitis decalvans," or *épilante*, originally described and differentiated by Quinquaud, of St. Louis Hospital, about 1883, of which our knowledge became general after the Paris Congress in 1889. The only feature which seemed not to be well developed in the present case was the tiny peri-follicular pustulettes which were so eminently characteristic of the disease in its early phases. But that, naturally, had been controlled by the treatment which had been adopted. In place of the pustulette we had the almost equally typical epidermic circumpilar collarettes at the spreading margin of the disease. These cases were constantly mistaken for Lupus erythematosus. He had had three in the last year sent as Lupus erythematosus of the scalp, and, from many points of view, he thought it well to distinguish them carefully.

Dr. S. E. DORE asked if Dr. Pringle thought there was any real difference between Quinquaud's disease and Brocq's pseudo-pélade? He thought the term "Folliculitis decalvans" was applied more to the early stages in which there was a definite perifolliculitis. In pseudo-pélade, cicatricial areas with a convex spreading margin were seen, but not the inflammatory collarette which Dr. Pringle had referred to. Were the two conditions distinct or were they stages of the same disease?

Dr. J. J. PRINGLE (in reply to Dr. Dore) said he thought Brocq's "pseudo-pélade" was a name descriptive of the last stage of shallow cicatricial condition of the scalp produced by Folliculitis decalvans. He would be sorry if Quinquaud's name should drop out in connection with this disease, because it was his work which established it as a dermatological entity.

Dr. W. KNOWSLEY SIBLEY exhibited a case of *Lichen obtusus corneus.* This woman was aged 71 years, and she had spent thirty-three years of her life at the Cape. She had now been back in England three and a half years. She said that ten years ago she had had somewhat similar lesions on her legs and arms, and they had disappeared, but

that since she had been in England they had come back, in a worse form, and persisted. There was a group on the outer side of the left leg, which she had had constantly for nearly four years; there was also a patch of hypertrophic tissue on the outside of the left ankle, a similar group on the right leg, on the outer side of the right thigh, on the inside of both thighs, and there was one papule left on the right forearm. Similar papules had occurred on the back of the hands, but they had completely disappeared after the application of X-rays. She had also one or two isolated papules scattered about her body. Apparently the irritation was, at times, extremely severe, and when he first saw her the areas were covered by scratch-marks, and some of the lesions on the legs were bleeding. There were no lesions in the mouth.

With regard to diagnosis, he had suggested that it could be grouped with the cases of Lichen obtusus corneus. The first case of this disease seen in this country he showed before the Section in July, 1916, and the second he exhibited here early in the last Session. But this differed from those cases in many respects. In both the former cases the papules were isolated and discrete, whereas in the present case many of them were grouped, especially the leg lesions, where the grouping was like that of a herpetic eruption. Notwithstanding that, there was some hypertrophic tissue between the papules. There was also considerable pigmentation left. The most marked typical discrete papule was on the inner side of the right thigh, which was the size of a pea, slightly umbilicated, presumably from scratching. The largest was in front of the right patella, which was a connecting link between Lichen obtusus corneus and Lichen hypertrophicus. Many of the lesions, taken by themselves, were exactly like those of Lichen obtusus corneus. He showed a photograph of the left leg.

The symptoms had been considerably relieved by small doses of X-rays, and the patient was now much more comfortable. The Wassermann test was distinctly negative. The case was complicated by pus infections, but he did not think that accounted for the hypertrophic corneous condition of some of the papules.

The pathological report was as follows: "The section of a papule taken from the outer area of the left leg showed a very marked thickening of the stratum corneum, which was infiltrated with horn

cells; the stratum granulosum appeared to be destroyed; the stratum mucosum was greatly thickened and elongated, dipping a good way down into the dermis proper; there was also a dense cellular infiltration present, and the blood-vessels were dilated. There were no giant cells present."

Dr. J. J. Pringle agreed with Dr. Sibley's diagnosis of this puzzling case, and thought his appreciation of its position in the lichen group was justified. He would not have arrived at any firm diagnosis had it not been for the dome-shaped elementary lesion high up on the right thigh, which corresponded in its characters with those of the very few cases which had been recognised as "Lichen obtusus corneus" in this country. The fibrous feel to touch was similar, as was also the colour. One of these cases came under his observation in private, and the diagnosis was confirmed independently by Dr. Adamson and Dr. A. M. H. Gray. There was also a patch about the shin which corresponded exactly to Lichen hypertrophicus. Therefore the view enunciated by the exhibitor that it was a "connecting link" was, he thought, an acceptable one. The itching was, evidently, very terrible, as we know it to be in these cases, and we must not be misled by the very large amount of consecutive pyogenic dermatitis which had naturally resulted from scratching of the large area of skin involved over the centre of the leg.

Dr. Graham Little deprecated the diagnosis of Lichen obtusus in this case. The wide-spread pus infection of the lesions—for they were practically all suppurative—was surely very unlike the picture of lichen. The nodule, which had been claimed as characteristic by the exhibitor, seemed to him to be more readily explained as a deep-seated pus infection, such as we saw commonly in Acne indurata. Africa was the home of inveterate pus infections of this very type. The histological report seemed to him to be further directly negative of the diagnosis of Lichen planus, for the granular layer was expressly said to have been absent, and this was, on the contrary, greatly accentuated in lichen, especially of the verrucose variety.

Dr. Semon said that in a large number of cases in France which they had dealt with in No. 25 General Hospital under Lieut.-Col. MacCormac, they had seen cases in which it was impossible to make a diagnosis between ordinary Lichen planus and lichenisation due to an infective condition secondary to parasitic infection. In the absence of facilities for making biopsies, they were unable, in some cases, to come to a conclusion in the matter. As Dr. Little had said, one could get lesions extremely like those described, under ordinary circumstances, as Lichen planus, but which were of infective nature, and in some cases there was no means, except the microscope, to settle it. In this present case there was nothing like a typical Lichen planus papule. In France they had been in the habit of looking carefully for mouth lesions, and very commonly they had found them when Lichen planus was present. In a case like this, one might possibly have found something on the tongue or the side of the mouth. Was Dr. Sibley's experience of treating Lichen planus by X-rays satisfactory? He had tried it in numerous cases, without much success.

Dr. S. E. Dore said this case was, he believed, only the third of its kind which

had been shown in this country. In the first case shown by Dr. Sibley there was nothing especially typical of ordinary Lichen planus, but Dr. Adamson pointed out that it was identical with an American case published in the *Journal of Cutaneous Diseases* under the name of Lichen obtusus corneus. In the present case the lesions on the upper part of the right thigh were identical with those in the case Dr. Sibley showed before. The present case was of special interest, because, as Dr. Sibley pointed out, it seemed to show the transition stage between characteristic Lichen planus papules and the obtuse horny lesions. Some of the patches, which had been considerably scratched and were surrounded by a good deal of cicatricial tissue, resembled those in a patient he had shown here two or three years ago with what he considered to be hypertrophic Lichen planus, although it was thought by some to be an artefact. She was still under his care, but he had never been able to identify a Lichen planus papule.

Dr. Bunch inquired if Dr. Sibley recollected, in the description of the American cases, if there were any Lichen planus papules at any time? When he read the paper the American cases struck him as being very indefinite, and an undoubted connection with Lichen planus seemed very indeterminate. Did Dr. Sibley look upon Lichen corneus, as described by American writers, as essentially and only a subdivision of Lichen planus?

Dr. Sibley, in reply, said that no Lichen planus papules were described in the American cases. He looked upon Lichen corneus as a subdivision of Lichen planus. In the first case he showed, Dr. Adamson diagnosed it, and he considered there was a Lichen planus papule by the side of one of the lesions. In that case there was no lesion in the mouth, nor in the other case he showed. This patient had had considerable pyogenic inflammation in addition. His experience of treatment of Lichen planus with X-rays had been very satisfactory, but not so with Lichen hypertrophicus. Lichen planus, especially in cases with much irritation, was relieved by one-third pastille doses of X-rays. He had had one or two cases of Lichen hypertrophicus in which the treatment had made the condition distinctly worse. This patient was in such a condition as to impel one to do something for her, and the small doses of the rays she had had made her feel a different being.

The President remarked that with regard to the points to which Dr. Pringle drew attention, namely, the peculiar lesion on the right thigh and that near the ankle on the same side, so far as the general eruption was concerned, he thought he would be a very bold man who would say it could not be well accounted for by recurrent chronic pyodermia, except for two points. He thought that the slightly horny patch near the ankle was probably Lichen hypertrophicus. But it was so complicated by pyogenic dermatitis that it was difficult to make a diagnosis. In such a case one would hardly expect to find lesions in the mouth. He had not had much experience of the treatment of Lichen planus by X-rays, but would give one example. For several years, when he had charge of the out-patient department at Charing Cross Hospital, he had a patient who came under his observation repeatedly, and he frequently made use of her as an example to students of Lichen hypertrophicus affecting the knee region, in front of the patella—a very common position. At Dr. MacLeod's suggestion X-rays were applied, with a good result. He was able to follow the case afterwards, and learned that the eruption had greatly improved, and that the affected areas were flat and smooth.

Dr. W. Knowsley Sibley showed a case of *senile tuberculosis*. The patient was a widow, aged 68 years. Four years ago a patch appeared on the lower part of the left cheek, and it has since been gradually extending, and now invaded practically the whole of the left side of the face and a small part of the ear. Recently nodules had appeared on the left side of her nose. It was not syphilitic; two Wassermann tests had been made, and both were definitely negative. He had not previously seen a case of the condition commencing in a patient as old as this one.

Dr. J. J. Pringle remarked that this case illustrated very perfectly a type of senile Lupus vulgaris with which he was familiar, and which he believed not to be extremely rare. He would draw attention to the very interesting way in which the ear was involved, as it was in Lupus erythematosus and in the Lupus vulgaris *erythematoides* of Leloir. As to the differential diagnosis of this case from one of syphilis, there could be no doubt whatever. Dr. Dore and he had, at the present moment, under their care an old Scotch woman, aged 75 years, in whom the diagnosis of syphilis had been made and acted on before she came under his observation with complete lack of success. The disease began on the forehead in 1912, and was of the same tumid type as in the case exhibited. He first saw her in November, 1917, and referred her to Dr. Dore for X-ray treatment. In March of the present year the patient's son-in-law wrote to me: "The treatment carried out by Dr. Dore has wrought almost a miracle"—a statement the justification for which he could endorse.

Dr. Graham Little said it was extremely rare to find lupus beginning at ages so advanced as in this case. Of course one saw lupus at this age not infrequently, but almost always with a history of much earlier commencement. He reported a case* beginning at the age of 72, which he believed remained a record. Colcott Fox,† in an early paper, investigated the ages of onset in ninety-six cases and found it only once "between 60 and 70." Crocker‡ saw it twice commencing, at the age of 63, and apparently at no greater age.

Dr. Travers Smith remarked that a case of his, a woman past 60 years of age, got her finger infected with tuberculosis while attending her husband, who was suffering from phthisis. She had lymphangitis, and the condition spread up the arm.

The President said the question of the age at which tuberculosis could be acquired was an interesting one. There was a popular idea that old people were not easily infected with the disease. He recollected a case similar to that mentioned by Dr. Travers Smith. A woman, aged about 60 years, came to Charing Cross Hospital, who had been attending her daughter, the subject of acute pulmonary tuberculosis. The tip of the woman's left forefinger was

* *Brit. Journ. Derm.*, 1906, xviii, p. 185.

† *Ibid.*, vi, p. 84.

‡ Text-book, 3rd ed., p. 716.

infected. The disease was regarded as serious and the tip of the finger was amputated. The disease then spread to the middle phalanx of that digit, and another portion of the finger was amputated. Later the disease involved the hand, and the surgeon then suggested that the hand should be amputated. At this time she came under his observation, as she was alarmed by this process of gradual dismemberment. She had lymphangitis and enlarged glands in the axilla, and at one time he thought she would develop pulmonary tubercle; but after he had had her under observation two or three years the tubercular lesions healed, the pulmonary lesion quieted down, and the cutaneous lesions were completely healed.

Dr. Agnes Savill asked if it was usual for Lupus vulgaris which began in youth and remained quiescent in middle age to become active and spread when the patient was over 70 years of age? She had at present such a case under her care.

Dr. Graham Little showed (4) a case of (?) *Dermatitis herpetiformis*. He showed this patient at the last meeting, when members would remember the extraordinary appearance he presented of rings of erythema closely covering the skin from the pelvis to the ankle. He sent in a note of the case with the provisional diagnosis of "Erythème centrifuge" of Darier, but with a reservation that it might prove to be Dermatitis herpetiformis. He believed the latter diagnosis was more probable. He put the patient on arsenic after the last meeting, and when he saw him a week after the eruption seemed to be aggravated, so that he stopped this drug. He had seen him again to-day after three weeks' interval. He had now a very pruritic vesicular and papular eruption, the distribution of which, especially on the axillæ and penis, was suggestive of an intercurrent attack of scabies, and the rings had wholly disappeared. He also gave a history that his wife had recently developed an itchy eruption. It was therefore very probable that scabies explained a part of the present eruption, but he was sure that it was only a small part.

The President said he did not feel so confident in Dr. Little's diagnosis; in spite of the fact that he told him that the characteristic feature of the eruption was a "ringed bulla," he would have felt inclined to diagnose scabies. But he remembered the case at the previous meeting, and he thought Dr. Little was accurate when he suggested that the scabies may have been intercurrent or an accidental infection, and that the man had underlying the circinate type of Dermatitis herpetiformis. The eruption on his penis, the peculiar distribution of the eruption on the body, and the statement that his wife began to suffer from itching, owing to a similar papular eruption, made the diagnosis of scabies loom large at the moment.

Dr. Semon said that whilst subscribing to the possibility of the presence of

two diseases in this patient he could not agree to the diagnosis of Dermatitis herpetiformis. He did not see why the vesicular eruption might not be the small bullæ which were sometimes seen in acute Erythema multiforme, of which he regarded this as an example. He regarded the peculiar yellowish-pink centre with the peripheral reddish raised edge as characteristic of the Erythema multiforme group. He thought this was scabies with Erythema multiforme, and that if there were, or had been vesicles, they were a well-known complication of Erythema multiforme. The recurrent nature of the affection would also fit in with that idea.

Note.—Since the meeting the patient and his wife had had full treatment for scabies. The rash in the axillæ in the patient had certainly benefited, and, in fact, it had vanished, but concurrently with this improvement there had been a fresh outbreak of the ringed erythema seen earlier.

CURRENT LITERATURE.

INFLAMMATORY AFFECTIONS.

SUDANESE STREPTOCOCCAL DERMATITIS. A. J. Chalmers and R. G. Archibald. (*Journ. Trop. Med. and Hyg.*, 1918, xxi, p. 145.)

In this contribution the writers describe a form of chronic eczema of the acanthotic type met with in the Sudan, but owing to the present confusion as to what is meant by "eczema," they prefer to avoid this term and to call the affection a "dermatitis." It is associated with a streptococcus—the *Streptococcus versatilis* of Broadhurst—which at times apparently is the sole causal agent. The organism is a common denizen in the fæces of horses in the Sudan and elsewhere, and this may be the source of infection. The condition is easily cured by vaccine therapy. J. M. H. M.

DERMATITIS AUTOPHYTICA. Brauer. (*Archiv f. Derm. u. Syph.*, January, 1918.)

The subject has excited the interest of the dermatologists of all nations during the war, as evidenced by publications in English, French and Italian journals. The Austrian army doctors have also reported numerous cases of this type of malingering. The author of this detailed and abundantly illustrated article enumerates the following reagents as having been among the causes of the lesions investigated: Hydrochloric, sulphuric, nitric and carbolic acids, lysol, caustic soda, mercury, cantharides as an ointment or plaster, stinging-nettle seeds, stems or leaves.

The lesions have an appearance that is characteristically "bizarre" at first sight. They may have angular or square outlines. The margins are sharp, and the skin immediately adjoining is normal. Sloughs are frequently yellow (HCl.

HNO_3), or black (H_2SO_4). White greasy sloughs should suggest caustic alkali, and the ulcers so produced are often deep. A slough in which the cutaneous characters are preserved (*e. g.* sweat-gland and sebaceous duct openings, hair-follicles, etc.) should at once arouse the suspicion of an artefact.

The greatest difficulty in diagnosis may arise in cases in which the cutaneous reaction is an eczema. Other "stigmata" must then be sought for, and an effort made by occlusive dressings, etc., to cure the local condition. The healed lesion must then be examined daily for the purpose of observing the early characters of the anticipated relapse.

Specific lesions, such as ringworm, may nevertheless have been self-inflicted, and the Russian medical service reports numerous cases of favus which are declared to have been auto-inoculated. The twenty-four or more photographs that illustrate the author's cases are well worth memorising, especially No. 18, which faithfully reproduces a mercurial dermatitis caused by friction and continued approximation of a silver coin dipped in mercury.

The author is strongly in favour of allowing every malingerer to know that the nature of his case is recognised. He recommends that his leave should be automatically and indefinitely postponed, and that all proved cases and the punishment allotted should be published in provincial journals, as well as promulgated in army orders. On the return of such a patient to his unit the M.O. should be acquainted with his full history.

The segregation and unified control by a dermatologist of note of all cases of this nature is the surest method of cure and the prevention of relapses.

H. C. S.

HYDROA ÆSTIVALE AND VACCINIFORME. PERUTZ. (*Archiv f. Derm. u. Syph.*, September, 1917.)

THE article which includes a detailed summary of the history and recent experiments on this interesting clinical syndrome is worthy of notice. The author suggests that the term "æstivale" shall be applied to those milder cases which run their course without scarring, while those resulting in puckered sclerosis should be distinguished in the nomenclature as "vacciniforme." Both forms may be associated with hæmatoporphyrin in the urine. Methods for the detection of this are cited. Mesoporphyrin, an allied or isomeric combination, is sometimes present, but is a less potent sensibilisator of the skin. Both compounds are derivatives of porphyrinogen—a colourless intermediate product in the metabolism of hæmatin to bile-salts, from which they may be obtained by the interaction of potassium permanganate.

According to Perutz the mechanism of the "phototoxidermatoses" is dependent on the photodynamic properties of the ultra-violet constituents of the solar spectrum on the exposed skin (viz. face, ears, back of hands, etc.) of susceptible individuals. The susceptible subjects are children mostly, of both sexes, and the idiosyncrasy tends to pass off as they grow older. It is intimately associated with the presence of hæmatoporphyrin in the urine, and experimental production of similar lesions in both man (Meyer-Betz) and animals supports the view. Hæmatoporphyrinuria may be produced as the result of diseases of the liver in which alcohol, the administration of sulphonal, lead poisoning, etc., may severally play a part. Prophylaxis and therapy are discussed. H. C. S.

HYPERKERATOSES.

SUDANESE EXAMPLES OF TWO COMMON HYPERKERATOSES. Chalmers and Innes. (*Journ. Trop. Med. and Hyg.*, May 15th, 1918.)

The authors describe with photographs and microphotographs a case of roughly symmetrical ichthyotic patches in a native of the Sudan, aged 45 years. They are most marked on the extensor aspects of the limbs, and on the buttocks, and were not apparent at birth. The histological appearances of the lesions are characterised by degenerative tendencies in the rete Malpighii and an absence of both the stratum corneum and stratum lucidum. There is of course marked hyperkeratosis, and acanthosis is also present, while there is considerable vacuolation of the cells of the sweat acinus, which are reduced to a simple layer. Arguing by analogy with what pertains in early cases of acnitis, in which the histological appearances are very similar, and in which the early application of radical remedial treatment is often effectual in establishing a cure, the authors discuss the possibility of an analogous ætiology, in the nature of an anaphylaxis, "in which the sensitisation of the cutaneous cells probably arises *in utero*, and is capable of being transmitted through the male (and probably through the female also) to the offspring, while the actual existing cause is possibly some chemical substance produced in post-uterine life." H. C. S.

GRANULOMATA.

THE CLASSIFICATION OF MYCETOMAS. Chalmers and Archibald. (*Journ. Trop. Med. and Hyg.*, June 15th, 1918.)

In a valuable contribution, Dr. Chalmers (who must certainly be regarded as one of the most eminent living authorities on this subject) and Major Archibald, D.S.O., R.A.M.C., define the differences, both clinical and biological, of the growth and pathogenic effects of (1) mycetoma, (2) paramycetoma, and (3) pseudomycetoma.

The first-named are always distinguished by the presence in the discharged pus of the typical mycelial "*grains*," and eosinophile bodies can usually be seen.

Paramycetoma may lack "*grains*," or they may be so few or so small as to require prolonged search. Eosinophile bodies are readily seen. Pseudomycetoma contain neither grains, fungal, nor eosinophile bodies.

All three species produce the same clinical appearances, viz. swelling, ulceration, and discharge, and cases have been met with in which the clinical appearances have closely resembled epitheliomata. The mycetomas are divisible into two classes—the madurom ycoses and the actinomycoses.

The *maduromycoses* produce grains which are composed of large segmented mycelial elements possessing well-defined walls, and usually chlamydospores. The *actino group*, on the other hand, are recognisable as fine, non-segmented filaments in which chlamydospores are absent. The maduromycoses are divided into sub-groups according to the colour of the "grains," and further subdivided according to geographical distribution. There are met with (1) black, (2) white or yellow, (3) red maduromycoses.

(1) Black maduromycoses. Met with in Europe, Africa, Asia and America.

A. The European black varieties have been reported from Italy, and are associated with the names of Bassini, Köbner, Schminke, and Brumpt.

B. The African black varieties are four in number, and their biology has been worked out by Brumpt, Nicolle and Pinoy, Bouttard, and Chalmers, whose classical research on cases met with in the Sudan has become a standard work on mycetoma.

C. The Asiatic black maduromycosis, of which there is only one type known at present, viz. Carter's. A case was shown at a meeting of the Dermatological Section of the Royal Society of Medicine in 1915 and reported (*Brit. Journ. Derm.*, August, 1915). The fungus was studied and described in detail by Chalmers (*Journ. Trop. Med. and Hyg.*).

D. The American varieties have not been worked out, and the two cases quoted occurred (1) in an Italian woman and (2) a native of India, who may have brought the disease with them, although domiciled in America for several years before it became clinically evident.

(2) The white or yellow maduromycoses have been reported in (1) Europe, (2) Africa, and (3) Asia.

(3) The red variety has been reported from the Sudan only (Balfour and Archibald), and may be due to an aspergillus, because aspergillar-like heads were found in the grains.

The authors go on to classify the actinomycoses. These also occur as black, white and yellow, and red grains. The ray (actino) formation in tissues and the so-called "clubs" suffice to differentiate them from the maduromycoses.

H. C. S.

MYCETOMA PEDIS NOSTRAS. MIESCHER (Bâsle). (*Archiv f. Derm. u. Syph.*, July, 1917.)

THE author describes in great detail and with many excellent illustrations a case of Mycetoma pedis, contracted in Bâsle by an Italian who had not been to his native country for twenty years. The causal agent, a mycelium growing as red colonies on glycerine and maltose agar, was a streptothrix. It is claimed as a new and hitherto undescribed variety, for which, in accordance with the cultural characteristics, the name of "Streptothrix verrucosa" is suggested. In the light of a recent classification of mycetomas by Chalmer and Archibald (*Journ. Trop. Med. and Hyg.*, June 15th, 1918) the red variety occurs only in the Sudan, and Meischer's case must therefore be regarded as a new discovery.

H. C. S.

TREATMENT.

THE TREATMENT OF WARTS. D. W. MONTGOMERY and G. D. CULVER. (*California State Journ. Med.*, 1918, xvi, p. 250.)

THE writers recommend the following treatment for the various types of warts:

For warts on the scalp, eradication by the curette is advocated, the bleeding being stopped with trichloracetic acid made fluid by adding a drop of water to a few crystals in a watch-glass. After applying the acid the surface should be washed over with boric acid solution to prevent the trichloracetic acid from acting too deeply. Another method recommended is the high-frequency spark, which reduces the wart to a grey, greasy mass which may be picked off with the nail, leaving a smooth surface.

For warts about or under the nails, treatment with radium is usually best. X-rays also give good results, but radium is easier to apply to a small lesion

and more prompt in its action. Should these means not be available the warts should be treated with strong salicylic ointment (12 per cent.) spread on cloth, applied, and covered with a rubber finger-stall, or by a watery solution of boric acid applied on cloth and also covered with a rubber finger-stall. This treatment is slow, and if there be no time to employ it the wart may be anæsthetised with novocain, curetted, and the base treated with trichloracetic acid.

Warts of the palmar and plantar surface of the fingers and toes should first be denuded by placing over them a piece of salicylic plaster (10 per cent.), and over this a large piece of adhesive plaster. After a week the epidermis may be peeled off and the remains of the growth removed by curetting, followed by the application of trichloracetic acid or by the use of X-rays or radium.

J. M. H. M.

THE TREATMENT OF PARAPSORIASIS (BROCQ). WEINMANN. *Archiv f. Derm. u. Syph.*, January, 1918.

THE therapeutics of this intractable dermatosis are notoriously inefficient. The author discusses at great length the results of local applications, which include tar, sulphur, ichthyol, salicylic acid, tincture of iodine, pyrogallol, chrysarobin, naphthol, and radiation with the quartz lamp (Krohmayer), and the internal administration of arsenic, quinine, salicin and antipyrin. In all the cases quoted nothing more than slight alleviation and temporary improvement was achieved.

In 1913 Herxheimer and Köster (*Berl. klin. Woch.*, No. xlviii) published their results with intra-muscular injections of pilocarpin hydrochloride, and claimed an apparent cure in several cases.

The drug is administered in doses rising from 0·005 to 0·01 grm. at intervals of two to three days, the number of injections, which varied from six to eighteen, depending on the results obtained. Each injection is followed in about five minutes by active perspiration and copious salivation. Occasionally there is vomiting, and the effect on the circulation and respiration must be carefully noted.

The author confirms the findings of Herxheimer and Köster, and agrees that the drug has not only a powerful influence in controlling the pruritus, but causes the disappearance of the eruption itself.

Contra-indications to the use of the drug are based on a knowledge of its physiological effects, which can be antagonised by atropine. In cases of heart and vascular disease, bronchial obstruction and pregnancy, the utmost caution must be observed.

The mode of action is unknown. Weinmann suggests that the rise of cutaneous temperature and stimulation of the general metabolism are possible factors in the production of favourable results. Sufficient time must be allowed to elapse before permanent cures can be claimed.

H. C. S.

THE VALUE OF INTRAVENOUS INJECTIONS OF ANTIMONY IN THE TREATMENT OF CHRONIC SECONDARY CHANCROID ULCERATION (ULCUS MOLLE SERPIGINOSUM). W. J. POTTER, M.D.Melb. (*Medical Journal of Australia*, July 27th, 1918, vol. ii. p. 65.)

CAPT. Potter describes four cases of Ulcus molle serpiginosum contracted in Egypt. Intravenous injection of potassium-antimony-tartrate, beginning with

0·015 grm. in 50 c.c. of sterile water. 0·03 being given after four days and gradually increasing doses up to 0·06 grm., was followed by "dramatic improvement."

Capt. Potter found that iodides and ionisation were of value in healing the more favourable type of ulcer, but failed to influence spreading phagedænic areas, and those parts which were glazed and inactive with little or no granulation. Both these conditions rapidly healed when treatment by antimony was instituted.

J. H. S.

SYPHILIS.

POST-GRADUATE INSTRUCTION IN THE DIAGNOSIS AND TREATMENT OF PRIMARY SYPHILIS. Arning and Jacobsthal. (*Derm. Wochenschr.*, 1918, No. 36.)

The lectures were given in the St. George Hospital at Hamburg in April last, and the following useful points are shortly recapitulated:

(1) The importance, both to the patient and the community, of recognising the earliest manifestations of the disease.

(2) The pernicious and still too common view that a typical Hunterian chancre is the characteristic and almost indispensable factor in making this diagnosis must be energetically combated. Flat erosions and small herpetic ulcers are frequently the only manifestations.

(3) Extra-genital infections, as on the lips and tonsils, are particularly common in women, and when there is marked secondary adenitis of a chronic type should always arouse suspicion. Every obstinate whitlow and panaritium should also be considered from this point or view.

(4) The indisputable proof of luetic infection is the discovery of the specific spirochæte. In this connection it is very important to avoid the local application of calomel and antiseptics in suspected cases.

(5) By far the most simple and effective means to hand is the dark-ground microscopic field. It is the method of choice, and a thorough practical knowledge of the technique is essential.

(6) Every dermatologist must be skilled in its use, and the lecturers recommend its frequent practice to gynæcologists and specialists for diseases of the mouth and throat.

(7) The Wassermann reaction cannot be obtained earlier than the fourth to the sixth week after infection, *i.e.* one to three weeks after the appearance of the primary sore, and practically always before the appearance of secondary symptoms. A complete cure is then more rarely obtained, and it therefore follows—

(*a*) It is an unpardonable error to make the diagnosis in early suspected cases dependent on the Wassermann reaction alone; *Spirochæta pallida* must be demonstrated. Negative Wassermann reaction is then only evidence against general systemic infection. A weak positive Wassermann reaction is of little value. It occurs in cases of Ulcus molle with secondary bubo. A strongly positive Wassermann reaction can be produced only by syphilis, while a negative result more than six weeks after the date of infection contra-indicates the presence of the disease.

(*b*) The combination of these two adjuncts to diagnosis are of the utmost value, both as regards prognosis and in the selection of suitable therapeutic measures (see 9 and 12).

(8) In sending specimens of blood for Wassermann reaction avoid boiling the cannula in solutions of soda, and, where available, Jena glass tubes are the best for long-distance journeys.

(9) Combined treatment with mercury and salvarsan is the most potent procedure in early cases. In secondary syphilis, especially those in which cerebral infection is thought likely, salvarsan must be given very cautiously. The sudden destruction of masses of spirochætes in the brain leads to the local production of toxic bodies, which may injure nerve-cells. A preliminary treatment with mercury is therefore indicated in such cases. While the Wassermann reaction is still negative, and the time that has elapsed since the infection is less than six weeks, attempts to "abort" the disease with high salvarsan dosage—·3 to ·4 grm.—are justifiable.

(10) In the opinion of many medical men, including the authors, the old salvarsan is more efficacious and less toxic than neosalvarsan.

(11) 1·2 to 2 grm. in all of the drug are administered in each course. The injections are given at intervals of five to eight days. Mercury is given by inunction or injection throughout. The course is repeated, even in presumed success of an abortive treatment, after three to six months, and further therapy is controlled by the results of the Wassermann reaction, which must be repeated quarterly or half-yearly for several years.

(12) In early (pre-positive Wassermann reaction) cases the prognostic results by abortive treatment are 100 per cent. cures. In primary cases with positive Wassermann reaction the prognosis is 60 per cent. cures after a single course.

H. C. S.

SUPER-INFECTION IN SYPHILIS. J. V. Klauder. (*Journ. Cut. Dis.*, 1918, xxxvi, p. 515.)

A considerable number of instances are now on record in which a second inoculation, or super-infection, with syphilis has occurred, not only during the period between the infection and the appearance of the chancre, but also at periods shortly after the primary sore developed. In this contribution four such cases are reported. According to the writer, genital lesions due to super-infection are papulo-ulcerative or ulcerating in type, have little or no induration, and are clinically not chancres. He believes that many of the so-called second attacks of syphilis are simply instances of super-infection, and that a true second attack with a primary sore followed by secondary symptoms is rare.

In the differential diagnosis of a genital lesion, besides re-infection and super-infection the following possibilities should be considered:

Ulcerative processes over foci of syphilitic lymphangitis on the penis may in rare cases simulate a recrudescence of the primary lesion; a mucous patch or an abrasion—in these, however, the spirochætes are present in large numbers; a localisation of spirochætes at the point of lessened resistance from the result of trauma.

J. M. H. M.

QUARTERLY SURVEY OF DERMATOLOGICAL LITERATURE.

ERYTHEMAS, INFLAMMATIONS, ETC.

Acute Eczema due to Faulty Metabolism of Food Elements. Louis Fischer. (*New York Med. Journ.*, November 9th, 1918, p. 804.)

Alopecia Areata in Radiographed War Wounded. Frenkel. (*Ann. de Derm. et de Syph.*, September, 1917, vi, No. 11, p. 578.)

Anthrax at Camp Hancock. J. B. Liedy and E. C. Rice. (*Journ. Amer. Med. Assoc.*, October 5th, 1918, lxxi, No. 14, p. 1133.)

Artificial Transverse Furrowing of the Nails. E. Rieche. (*Derm. Wochenschr.*, September 28th, 1918, lxvii, No. 39, p. 655.)

Dermatitis Herpetiformis: Its Ætiology and Relationship to certain Members of the Bullous Group of Diseases, especially to Erythema Multiforme and to Pemphigus. M. B. Hartzell. (*Journ. of Cut. Dis.*, November, 1918, xxxvi, No. 11, p. 497.)

Dermatitis Lycopersicum Esculentum (Tomato Plant). G. E. Lain. (*Journ. Amer. Med. Assoc.*, October 5th, 1918, lxxi, No. 14, p. 1114.)

Erythema Iris, A Note on. F. Parkes-Weber. (*Brit. Journ. Child. Dis.*, April–June, 1918, xv, Nos. 172–174, p. 115.)

Erythema Nodosum associated with Tuberculosis. E. Bronson. (*Brit. Journ. Child. Dis.*, April–June, 1918, xv, Nos. 172–174, p. 91.)

Keratodermia Blenorrhagica (illustrated). A. Levy-Franckel. (*Ann. des. Mal. Vénér.*, July, 1918, xxx, No. 7, p. 385.)

Leprosy, A Case of. Barker Benson. (*Urol. and Cut. Review*, September 18th, p. 495.)

Lichen Planus, Ætiology of. E. D. Chipman. (*Journ. Amer. Med. Assoc.*, October 19th, 1918, lxxi, No. 16, p. 1276.)

Louse Bites, An Interesting Reaction to. W. Moore. (*Journ. Amer. Med. Assoc.*, November 2nd, 1918, lxxi, No. 18, p. 1481.)

Mycosic Intertrigos, Diagnosis and Treatment of. R. Sabouraud. (*La Presse Médicale*, May 30th, 1918, No. 30, p. 276.)

Pearly Stomatitis or Triangular Commissure of Smokers, Semeiological Value of the Lesion called. L. M. Bonnet. (*Ann. de Derm. et de Syph.*, October, 1917, vi, No. 12, p. 597.)

Post-inflammatory Atrophy of the Skin, Extending over both Lower Limbs, A. Ch. Audry and A. Azémar. (*Ann. de Derm. et de Syph.*, October, 1917, No. 12, p. 608.)

Quincke's Œdema, resulting in Necrotic Inflammation and Atrophy. C. Kreibich. (*Derm. Wochenschr.*, October 5th, 1918, lxvii, No. 40, p. 672.)

Ringworm due to Epidermophyton Inguinale, An Epidemic of. M. F. Boyd. (*Urol. and Cut. Review*, September, 1918, p. 507.)

Scabies in Military and Civil Life: Its Differentiation, Complications and Treatment. F. C. Knowles. (*Journ. Amer. Med. Assoc.*, November 16th, 1918, lxxi, No. 20, p. 1657.)

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